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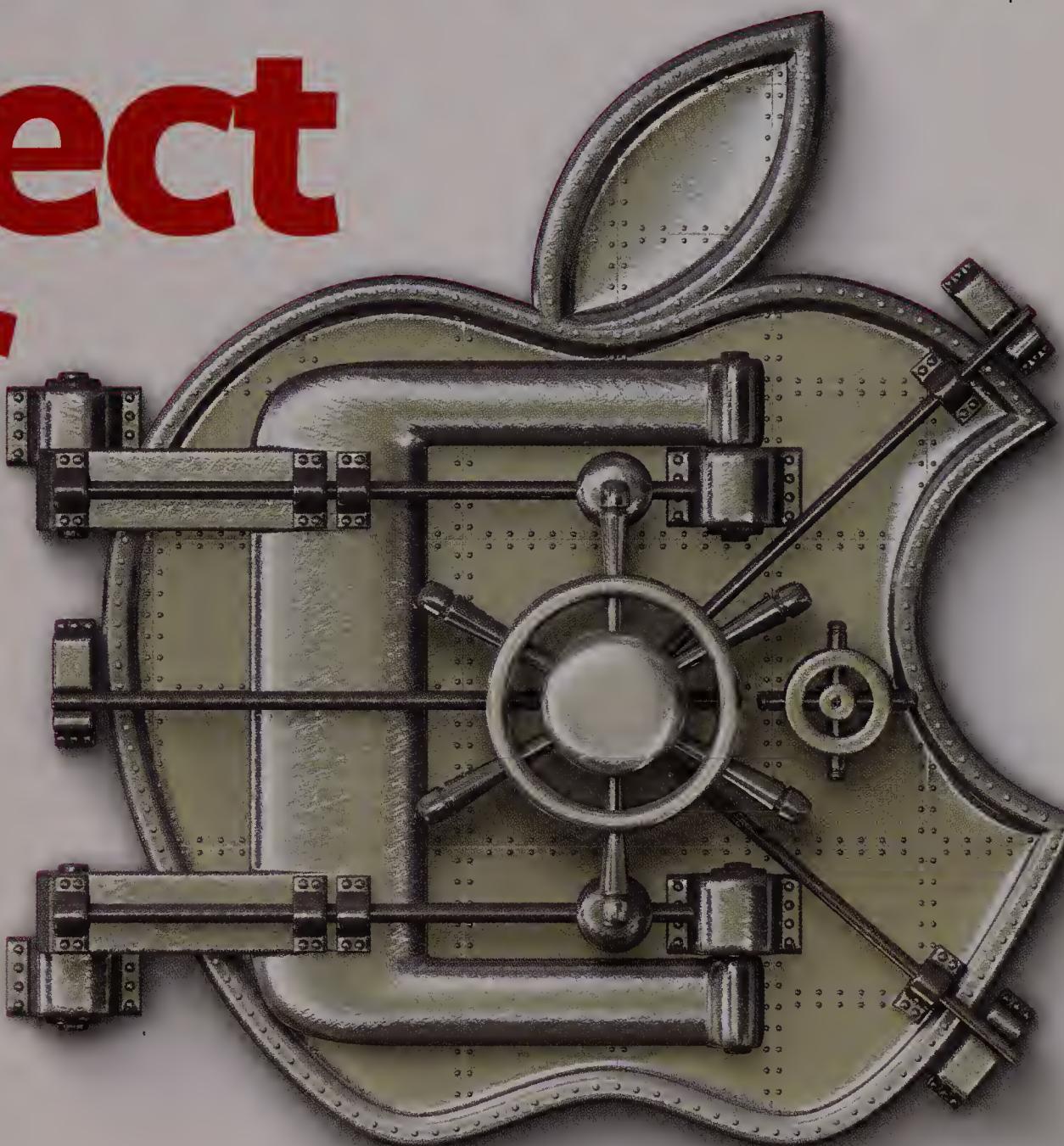
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The Mac Experts

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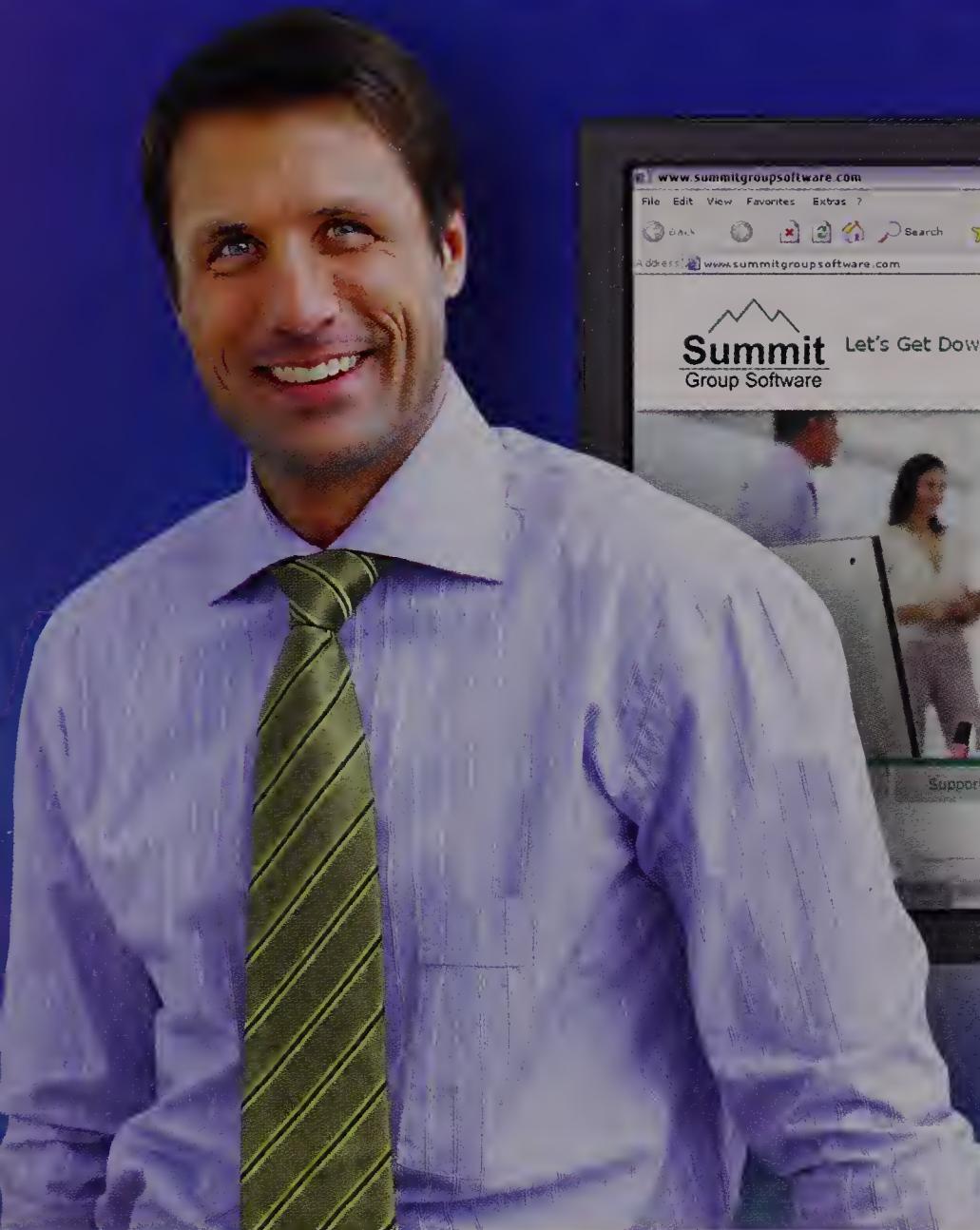
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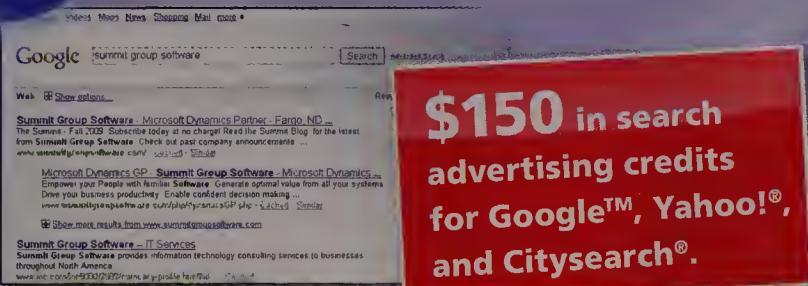
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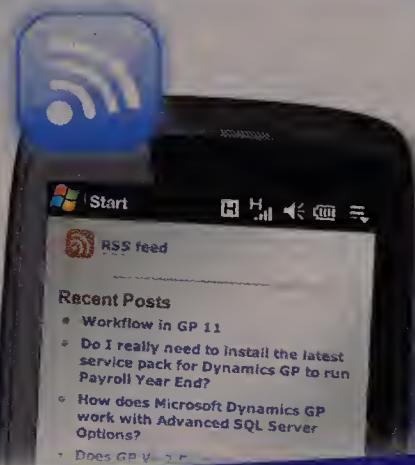
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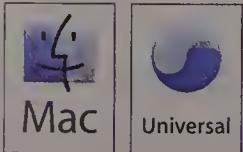


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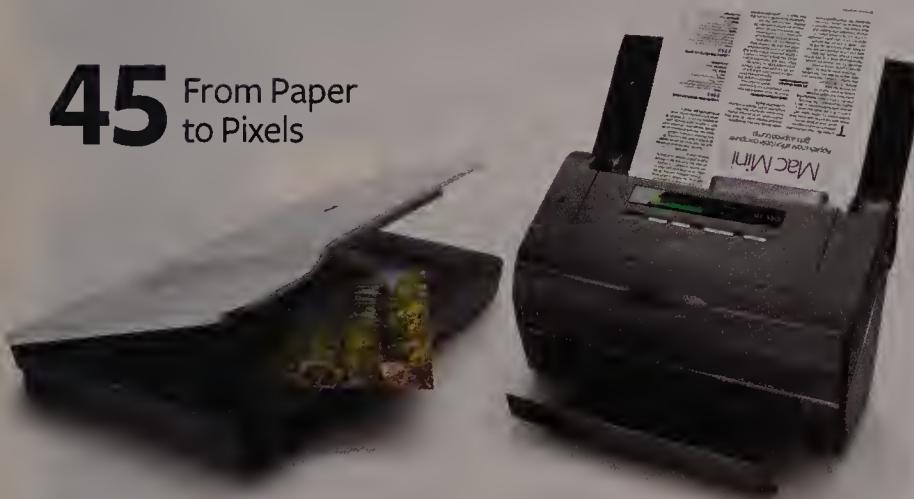
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Protect
Your Mac



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From Paper
to Pixels



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Illustration by Joe Zeff Design

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SSDs and the MacBook Pro

Rob Griffiths discusses the Wintec Filemate 48GB ExpressCard SSD and then demonstrates

how to install it in a MacBook Pro (macworld.com/5718).

We also recommend:

Macworld Podcast: Live from CES (macworld.com/5719).

Macworld Podcast: Mac Pundit Showdown V—Tournament of Champions (macworld.com/5720).

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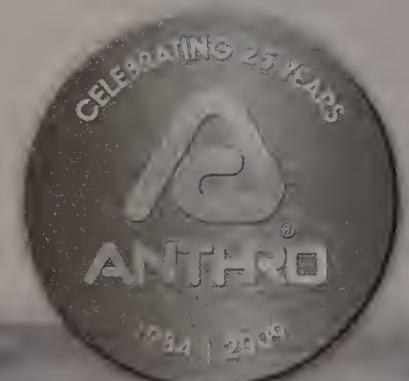
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The End of Carbon Copies?

Why Apple's commitment to innovation may finally be rubbing off

The massive Consumer Electronics Show (CES) in Las Vegas is about as un-Apple a place as you'll ever find. But Apple affects CES like a black hole: it's completely invisible, yet exerts a powerful influence on everything around it.

Cheap Imitations

As I wandered the show's massive floor, I saw plenty of cheap, off-brand products: netbooks running Windows 7, indistinguishable Android- and Windows-based smartphones, Kindle knockoffs, and an avalanche of other cheap gadgets, all made by Asian companies I've never heard of. I realized that—with a few major exceptions—the consumer electronics industry is about duplication, about making passable-yet-cheap products based on the innovations of the few creative companies—such as Apple—that still exist.

The companies you've never heard of aren't the only ones producing commodity technology products. Some big-name PC vendors try to innovate. But how different can your computer be if it's using the same Intel or AMD chipsets and running the same copy of Windows 7 (or, even still, Windows XP) as every one of its competitors? At CES, Microsoft CEO Steve Ballmer unveiled a Hewlett-Packard computing slate. But despite HP's hardware innovations, at its root the device is still a Windows PC.

The smartphone market hasn't ossified the way the PC market has. Sure, there are plenty of generic phones out there. But vendors that want to combine hardware and software in novel ways still can. Some handset makers are thoroughly customizing both Android and Windows Mobile. HTC, for example, has added its own interface layer—Sense—to phones running both Windows Mobile and Android, while Motorola has a social-networking-flavored interface called MotoBlur.



Apple's fusion of hardware and software design is what allows it to innovate and remain distinct.

These phone makers have realized that designing a nice handset isn't enough; they need to fuse that physical design with clever software if they want to stand apart from their competitors. In other words, they must do what Apple does. Many phone makers won't bother. Others will try, but find that it's harder than it looks. A few might succeed.

Brand-New Eyes

If CES is the celebration of the off-brand, Apple is the exact opposite: The company is all about the brand. The entire point of Apple's products is that they are not interchangeable with anybody else's. Only one company makes Macs, iPhones, and iPods, and that's Apple.

In the PC industry, Apple's fusion of hardware and software design is what allows it to innovate and remain distinct from the competition. Windows has to operate on all kinds of hardware; that limits what Microsoft can do. OS X has

to work on Macs only, so Apple can do whatever it wants.

This isn't rocket science. Brands mean something when the companies behind them truly control the products they sell. But Windows' dominance of the PC industry has infused the tech world with a dull and overriding sameness. How depressing is it that, for 20 years, consumer technology companies have been selling essentially the same product (Windows) in different packaging?

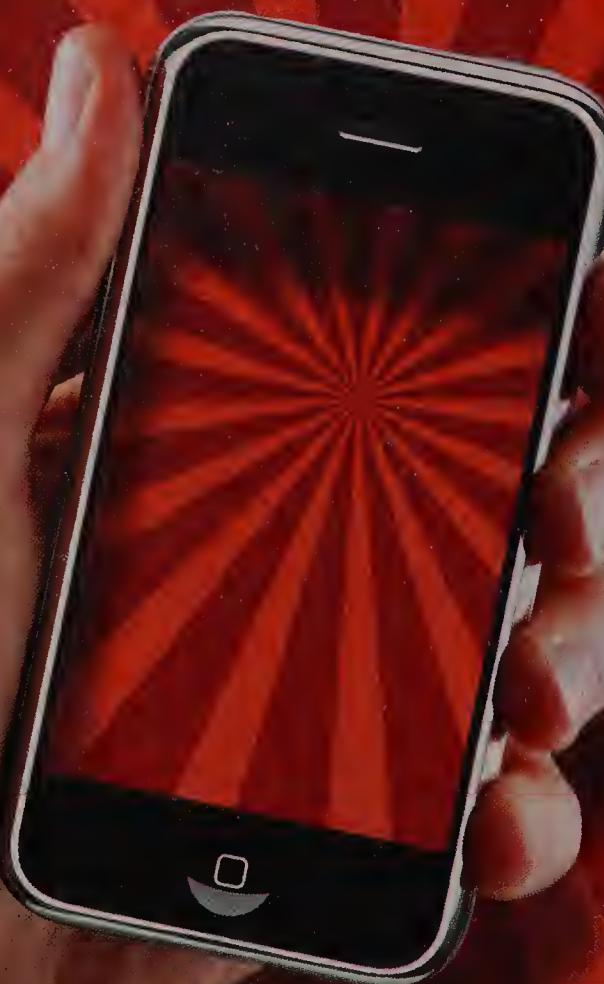
This is why Apple has been so successful during the past decade. Its products are different. They have personalities. People form emotional attachments to the iMac, the iPod, and the iPhone, and they know they won't get the same experience from other companies' computers, music players, or phones. The names of Apple's products may stay the same, but the products themselves are constantly changing. With the exception of the shape of its USB ports, today's iMac is completely different from the one released in 1998. In contrast, today HP is flogging the HP Pavilion All-in-One MS214. (Gee, I always fancied myself more of an MS210 guy.)

I doubt that the PC category (as we think of it today) will ever be vibrant with competition. It'll be the Mac and Windows, perhaps with some Google Chrome thrown in, for years to come. But I really believe that Apple's success with the iPhone has convinced some companies that to truly succeed, they must do what Apple has done so well: Control the entire user experience, hardware and software combined, and innovate from there.

You can follow **Jason Snell** on Twitter at twitter.com/jsnell or send him e-mail at jason_snell@macworld.com. Or you can become a fan of *Macworld* on Facebook at www.facebook.com/Macworld.

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CONTRIBUTING PHOTOGRAPHER Peter Belanger

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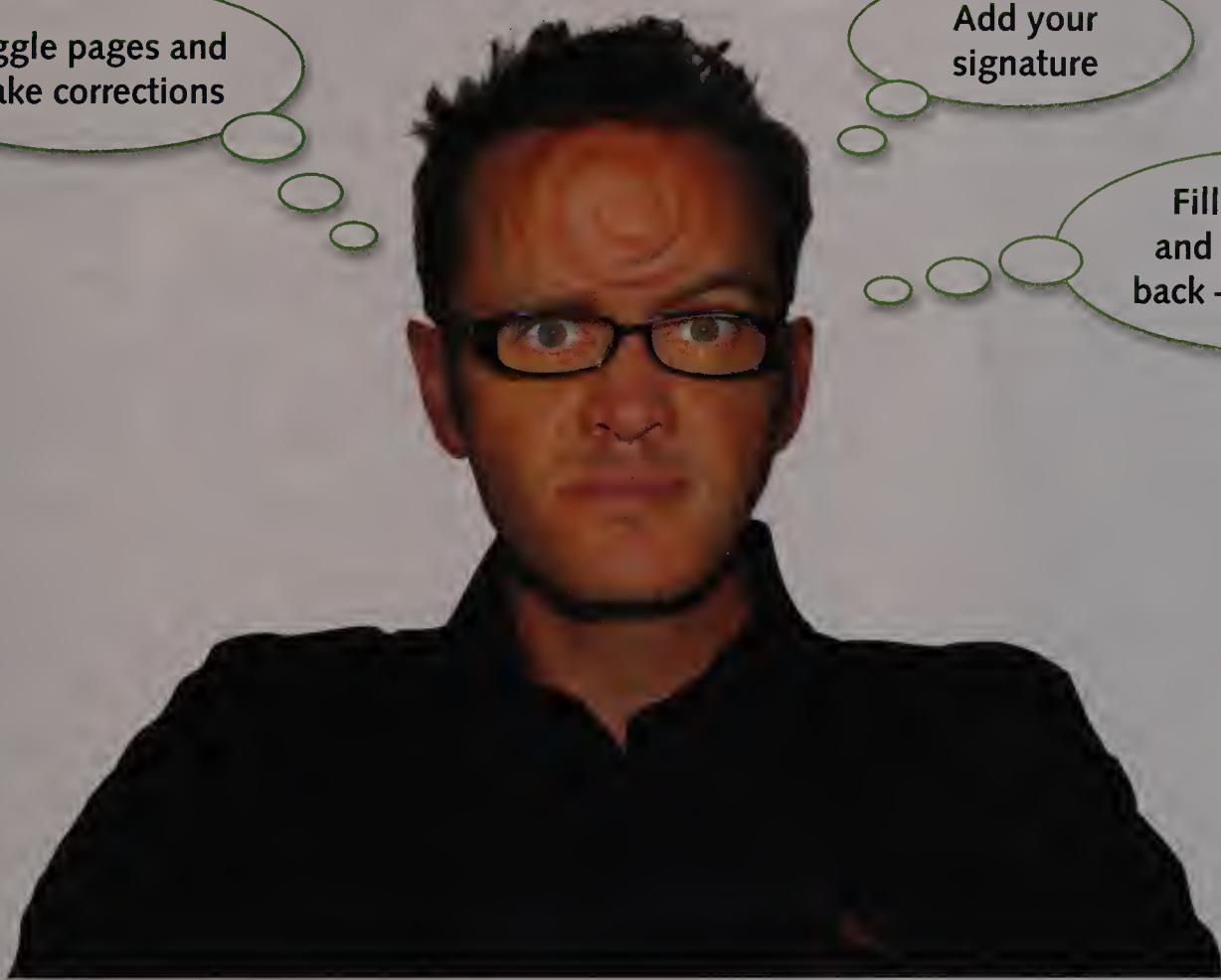
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New Macs, New Tips, and New Complaints

Readers discuss the latest Macs and proper Internet etiquette, and share OS X tips

Don't Let Apple off the Hook

We should pass up no opportunity to ding Apple for not offering a nonglare screen option on the iMac ("Widescreen Wonders," January 2010). The same goes for a full-size wireless keyboard. In the meantime, there are a few other options to consider: a Mac mini, if your performance needs are modest, or a Mac Pro if they are not. Either of which you can use with any monitor you choose as well as with third-party wireless keyboards. While we can (and should) kvetch because Apple doesn't meet our exact needs, it's really up to us to work around Apple's shortcomings. It's all well and good to insist that we shouldn't have to compromise to own a Mac, but sooner or later reality bites. Of course, the incentive to adapt our needs to what Apple offers to



sell us increases in inverse ratio to how old our present system is.

— **whitedog**

Readers Recommend Music Streaming Services

Another option similar to Pandora and Last.fm is Slacker rádio. It is also free (with a paid version that gets rid of ads) and has a very nice iPhone app (pictured). I've switched to it entirely from Pandora because, for my listening tastes, the music selection is much better.

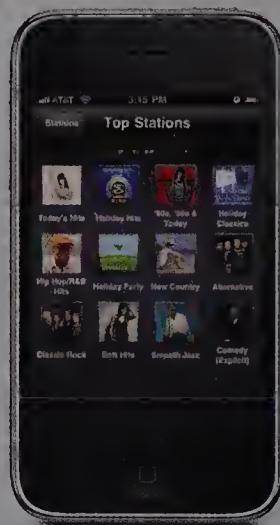
— **chad515**

Lala.com should be added to the list. There are no subscription fees or ads to deal with, and you can stream your own uploaded MP3s and purchase Web-version albums and songs for 10 cents a song. You can stream your music through any browser and computer, and I understand that Lala will soon have a streaming Mobile app.

— **6555**

You can stream iTunes' selection of Internet radio stations. All you need is Rogue Amoeba's Airfoil (\$25; www.rogueamoeba.com) on your Mac and its iPhone App, called Speakers. You can stream from iTunes (or anywhere else) to your iPhone or iPod touch.

— **tony_d**



The absence of an IR port on the new MacBooks is really interesting. I don't think Front Row ever took off in the way Apple expected it to, but I see it as a nice feature. I'm not too surprised Apple removed FireWire and didn't add an SD card slot. For most purposes the \$999 MacBook is the same as the \$1199

MacBook Pro. Apple does need to offer some differentiation for the \$200—and the plastic case (which is 0.08 inch thicker and 0.2 pound heavier) isn't enough to justify the cost for most people. Overall, I really like this upgrade, but my next laptop will be a MacBook Pro.

— **cycomachead**

Watch Your Language

I've had to work really hard not to nitpick other people's grammar and spelling [online] ("Eight Ways to Become an Internet Pariah," *Mac User*, January 2010). It pains me to see the English language butchered, but I finally realized that correcting it is a futile activity. I still get a good-hearted jab in every once in a while though.

— **The Bum**

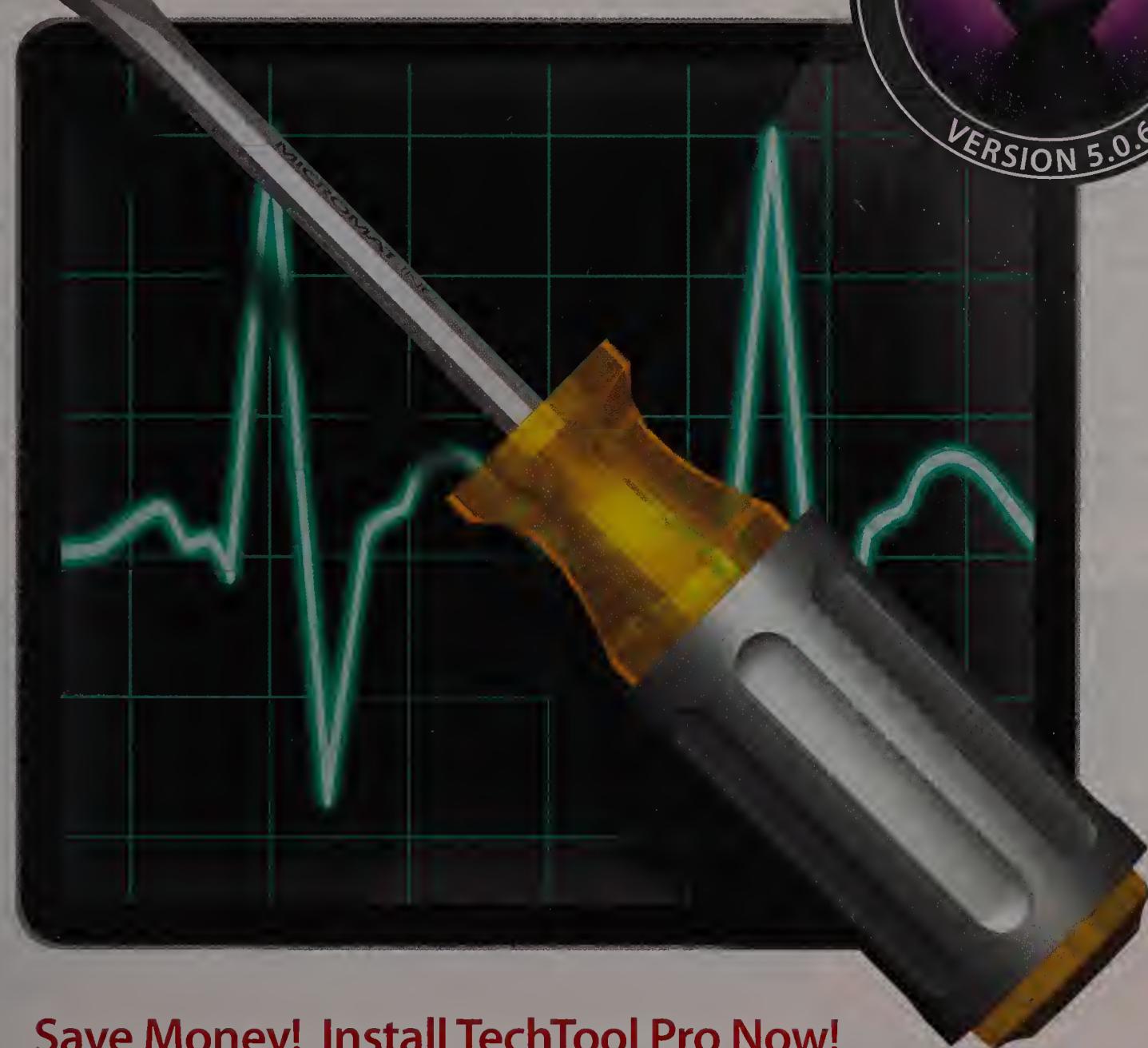
There are two arguments to be made for proper language use. First, improper use of punctuation and grammar can lead to confusion or misunderstanding. Second we often judge (sometimes unfairly) the quality of someone's ideas by their ability to express them clearly and accurately. Christopher Breen suggests that there's no real connection between proper use of language and the quality of one's thought process. I'm not sure I agree with that. We have nothing *but* language in which to think and reason. Our ability to control language, to make it do what we want, is much more than mere window-dressing.

— **JakeB**

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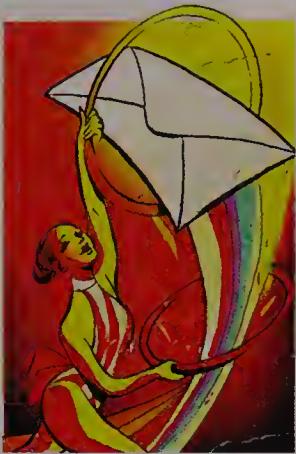
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Here's another addition to your list: Don't assume we all know that you're joking, being facetious, or asking rhetorical questions. Without those silly smiley faces and wink-winks, you're not a comedian; you're just a buffoon.

✉ **BruisedApple**

One More Mail Feature

In Mail, instead of using the command Send Again (⌘-Shift-D), use Forward As Original (⌘-Shift-E) to send the same message to additional recipients ("The Seven Most Underused Features in Apple Mail," *Working Mac*, January 2010). This will retain the message's subject and body but clear the recipients.



✉ **solitario**

Deleting iTunes Dups

The Option key is your friend when you're deleting duplicate files in iTunes ("Clean Up Your iTunes Library," *Playlist*, January 2010). If you press and hold Option and then open the File menu in iTunes, you will see Show Exact Duplicates instead of Show Duplicates (the latter command includes alternative versions of songs).

✉ **tarmbruester**

GPS in Image Capture

In addition to all the other things that Image Capture can do, it also makes it easy to grab GPS coordinates from images you snap with your iPhone ("Amazing Image Capture Tricks," *Digital Photo*, January 2010). Simply double-clicking on the coordinates opens up a Google Maps page. Image Capture is no substitute for a dedicated workflow tool, but it's ideal if you deal with only a small number of images on an occasional basis.

✉ **GregW**

I combine Image Capture with Cameras, a preference pane by Flexibits (flexibits.com) that allows me to specify what happens when I plug specific hardware into my computer. For example, when I plug in my camera, Aperture opens. But when I plug in my iPhone, iTunes and Image Capture open, rather than iTunes and Aperture. Having Aperture or iPhoto open every time I connect my iPhone would be overkill.

✉ **Hakeswill**

Snow Leopard

Deleting AppleTalk compatibility from 10.6 was a premature and unnecessary step on Apple's part, and not placing a warning of any kind about this, either on the 10.6 upgrade package or during the installation, is shameful and irresponsible. I lost 48 hours of my life figuring this out and then reverting back to 10.5.8. Now Snow Leopard is just an expensive coaster.

✉ **John Aldaz**

It's 2010. Can your personal finance software export to TurboTax? Schedule payments? Track buys and sells in your portfolio? Let you enter, edit or split transactions manually? Sync to its own iPhone app? Handle multiple currencies? Run in Snow Leopard? Import accounts, transactions and investments from Quicken? **iBank can.**

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I read with amazement the problems of readers who had installed Snow Leopard. What weird software and hacks do these people have? I installed Snow Leopard easily on my aging iMac 2.16GHz Intel Core 2 Duo, and have had no problems with Photoshop, iDVD 6, Mail, or any other software, and have experienced no quirks—only seamless performance. Of course, if you still have an ancient printer or out-of-date software, you might want to *read up* before you install the OS.

—Richard Posner

Well-Rounded Reader

In your January issue, you hit three home runs. The article by Pariah S.



Burke about signing electronic documents was instantly useful to me ("Signing Electronic Documents," *Create*, January 2010). I have to sign contracts that come in PDF form. Now, after applying this process to create a legal digital signature, I can sign and return a document in just a few clicks. I

used the suggestion on page 53 to control the volume of my Harman Kardon SoundSticks with the volume keys on my keyboard ("Turn It Up," January 2010). And Joe Kissell's article on underused Apple Mail features helped me figure out how to add my business e-mail address to my primary e-mail account in Mail.

Several times a year I am grateful that there is such a magazine as *Macworld*.

—Jay Kappmeier

Correction

In the February 2010 issue's "The 25th Annual Editors' Choice Awards," the vendor for the Flip MinoHD was listed incorrectly. It should have been Cisco.

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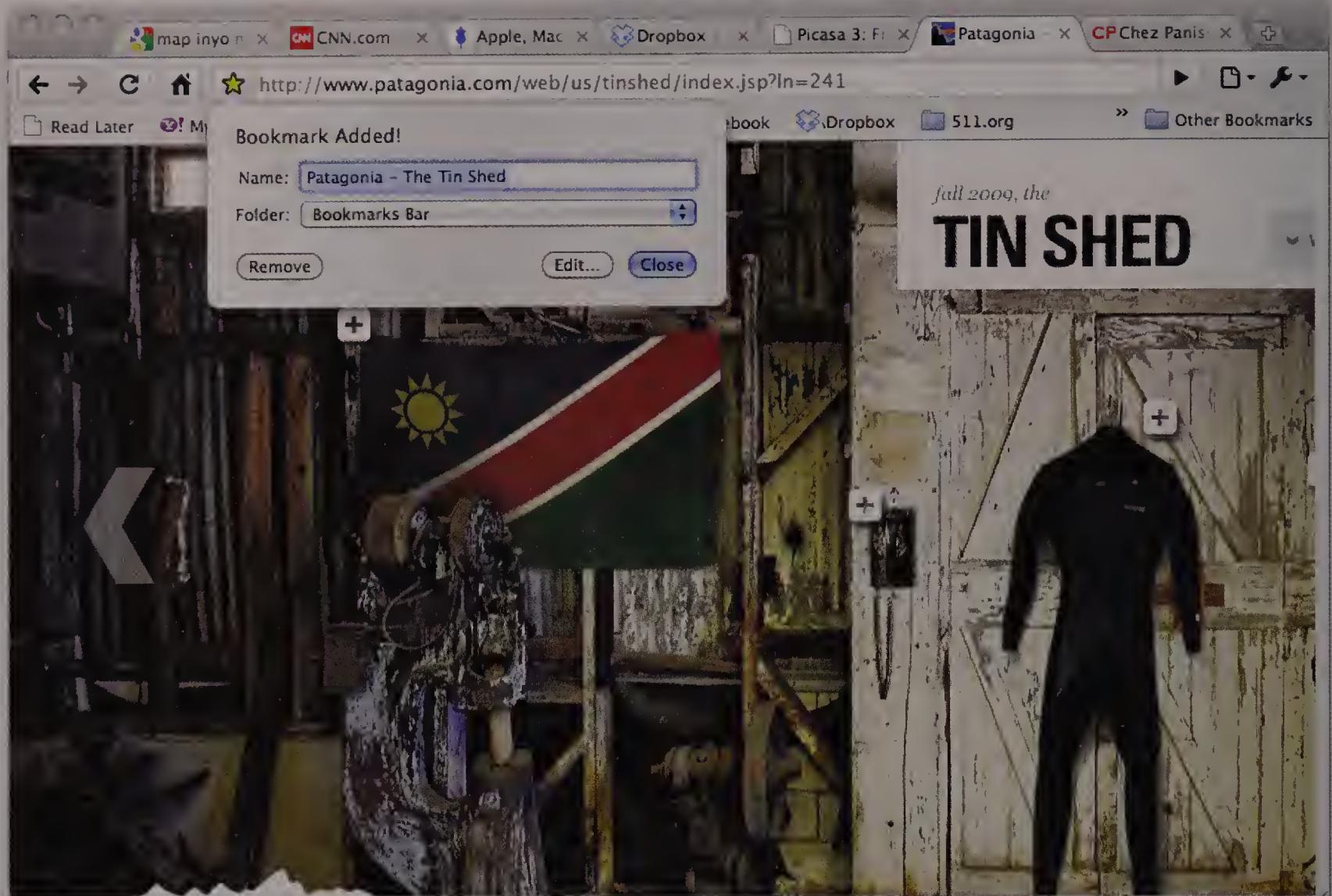
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FIRST LOOK: GOOGLE'S CHROME BROWSER

Beta is speedy, innovative, and incomplete

By Rob Griffiths

Think there are already too many OS X browsers (Safari, Firefox, OmniWeb, Camino, iCab, and Opera, to name the best-known)? Well get ready for another one: Google's Chrome for Mac (www.google.com/chrome). At press time, it's very much a beta release, but it's still worth a look, to see what (if anything) it offers that other Mac browsers don't.

Speed

One of the first things you'll notice when you use Chrome is that it feels really fast. Its interface is super-responsive. Pages seem to start loading as soon as you enter a URL. Ask for a new window

or tab, and it appears instantly. Even little things, like dragging a tab, feel snappier in Chrome than they do in, say, Firefox.

That subjective impression is confirmed in stopwatch tests. I ran eight browsers (Firefox 3.5 and 3.6b4, Safari, WebKit, OmniWeb, Camino, Opera, and Chrome) through two different performance tests (the SunSpider JavaScript Benchmark and the Peacekeeper browser benchmark). In those tests, the fastest browser was WebKit, the open-source core of both Safari and Chrome; those two browsers tied for second. JavaScript isn't the only measure of browser performance. But the tests back up my feeling: Chrome is speedy.

The Interface

The next thing you'll likely notice about Chrome is the interface.

For one thing, instead of separate address and search input boxes at the top, there's a single input area. Google calls that area the OmniBox. Type a URL into it, and Chrome opens that site. Type a search query into it, and Chrome will send the query to Google. (You can change this default setting if you want.)

Then there's Chrome's treatment of tabs. I wasn't a fan of Safari's recent experiment of putting tabs at the top of the application window. But I like the way Chrome does it. The tabs aren't completely at the top; there's still a small

border above them, so you can grab the top edge of the application window to move it. This design gives the browser window maximum screen space while allowing easy window management.

Tabs as Processes

Chrome's tabs are also treated as separate processes. In other words, each tab or window is effectively a stand-alone browser. So if one site crashes, it won't take down your other windows and tabs.

The only downside is that creating many separate processes can chew up memory quickly. I opened the same five sites in Chrome and Firefox 3.5 and then compared the browsers' real memory usage: Firefox used 172MB of RAM, while Chrome required 275MB. If you work with a lot of open tabs, Chrome's memory usage could slow you down.

Other Features

Chrome lacks a bookmarks manager; you can bookmark a site by either dragging it to the Bookmarks Bar or clicking the star next to its URL. On the Bookmarks Bar, sites are identified by favicons. (You can add text if you like.) And there is an Incognito mode, which prevents the browser from recording your browsing habits. If you're not enamored with Chrome's default look, you can install themes to change it. There are also extensions, which can add new functionality, but they were released after I finished my evaluation.

Chrome for Mac is a work in progress; it's not ready to be your only browser. But even at this stage in its development, it's speedy and stable, and it has an intuitive interface. I'm looking forward to the final release.



Apple Ad Awards

By Alison Piper

Adweek Media has confirmed what every Apple watcher already knows: the 2000s were a good decade for Apple. The venerable advertising trade publication has selected Apple as the winner of several of its Best of the 2000s advertising awards.

Specifically, Adweek named Steve Jobs Marketer of the Decade, primarily for his innovation in redefining music and mobile phones as computer-related businesses, as well as for making them cool and profitable. Adweek also chose Apple as the Brand of the Decade, which it attributes largely to Jobs's leadership.

Adweek tapped Apple and its partners for three of the ad campaign awards, as well. "Get a Mac" (which anthropomorphizes the PC as John Hodgman's hapless geek and the Mac as Justin Long's cool, untroubled winner) was named the Campaign of the Decade. Adweek said that the ads are about human-computer interaction; frankly, they seem more about "in your face" than interface.

The two other winning Apple campaigns were the "Silhouettes" ads for the iPod (cited for the "frenetic happiness" they inspired) and the Nike+ campaign (chosen as Digital Campaign of the Decade).

Macs: Current Lineup

PRODUCT	SPECS	RATING	PRICE	DISPLAY	SPEED-MARK 6 ^a	FIND CODE ^b
DESKTOP						
iMac	Intel Core 2 Duo/3.06GHz (nVidia GeForce 9400M)	4 1/2	\$1199	21.5 inches	148	5510
	Intel Core 2 Duo/3.06GHz (ATI Radeon HD 4670)	4 1/2	\$1499	21.5 inches	164	5509
	Intel Core 2 Duo/3.06GHz	4 1/2	\$1699	27 inches	162	5508
	Intel Core i5/3.06GHz	4 1/2	\$1999	27 inches	209	5511
Mac Mini	Intel Core 2 Duo/2.26GHz, with 160GB hard drive (late 2009)	4 1/2	\$599	not included	104	5507
	Intel Core 2 Duo/2.53GHz, with 320GB hard drive (late 2009)	4 1/2	\$799	not included	118	5506
Mac Pro	Intel Xeon/quad-core 2.66GHz	4 1/2	\$2499	not included	206	4488
	Intel Xeon/two quad-core 2.26GHz	4 1/2	\$3299	not included	203	4503
PORTABLE						
MacBook	Intel Core 2 Duo/2.26GHz (white)	4 1/2	\$999	13 inches	111	5505
MacBook Air	Intel Core 2 Duo/1.86GHz	4 1/2	\$1499	13 inches	not rated	4953
	Intel Core 2 Duo/2.13GHz	4 1/2	\$1799	13 inches	72	4954
MacBook Pro	Intel Core 2 Duo/2.26GHz	4 1/2	\$1199	13 inches	104	4947
	Intel Core 2 Duo/2.53GHz	4 1/2	\$1499	13 inches	120	4948
	Intel Core 2 Duo/2.53GHz	4 1/2	\$1699	15 inches	118	4949
	Intel Core 2 Duo/2.66GHz	4 1/2	\$1999	15 inches	127	4950
	Intel Core 2 Duo/2.8GHz	4 1/2	\$2299	15 inches	139	4951
	Intel Core 2 Duo/2.8GHz	4 1/2	\$2499	17 inches	140	4952

^a Speedmark 6 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.6 (Snow Leopard). For more information on Speedmark testing, go to macworld.com/5503. ^b In a browser's address field, typing in a find code after macworld.com/ takes you to a product's review or overview.

WHY APPLE DOESN'T MAKE PRINTERS ANYMORE

By Matt Deatherage

Apple improved music players with the iPod, and revolutionized the cell phone with the iPhone. So why shouldn't it do the same thing with printers?

Of course, once upon a time, Apple *was*



in the printer business. The company sold printers from 1980 (when it introduced its first model, the Silentype) until 1997 (when it debuted its last model, the LaserWriter 8500).

It did so because it wanted to be sure that high-quality printers were available for its computers. In the eighties, the computer market was still so fragmented, with so many operating systems, that every application supplied its own printer drivers. Back then, you had to check an application to see if it was compatible with your printer. Apple wanted to have printers available for its computers. The classic Mac OS had no printing architecture: Each printer driver had to manage everything from the ground up, including figuring out how to emulate every hack

that every application had used to get better results from the ImageWriter and LaserWriter drivers.

By the end of the 1980s, however, Hewlett-Packard and some other innovative vendors had done the thankless work of figuring out how to create their own Mac drivers; they started shipping their own Mac printer drivers with their printers. By the time Steve Jobs returned to Apple in 1997, plenty of high-quality Mac-compatible printers were available from a wide variety of manufacturers. When the company had to winnow projects to focus on the basics, printers were easy to cut.

The key thing to remember about this history is that Apple never created its own printing technology. The print

PHOTOGRAPH BY KEVIN CANDLAND



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heads in its dot matrix printers came from C. Itoh; the inkjet engines were by way of Canon or HP; and the laser engines were from Canon or Fuji-Xerox. Early on, Apple built some printers itself with OEM parts, but by the end of its printer days, the company's StyleWriters were merely rebranded HP printers with Apple's logo slapped on.

That's why there's no reason for Apple to get back into the printer business. Printer vendors make money on *printer supplies*—ink, toner, and specialty papers. The only way you can get that revenue is if you make your own printing engine. Apple never did that—and I can't see it doing so now.

Printer companies have been trying to protect the fat margins on their printer supplies with everything up to and including smart chips that accept only officially sanctioned supplies, leading to lots of lawsuits and consumer enmity. And those margins could be squeezed as consumers look for lower-cost ink, using new services

such as Costco's on-site inkjet cartridge refill service.

Even ignoring the financial problems Apple would face if it tried to reenter the printer market, it would have to deal with supply chain challenges. It would have to build and distribute all those spare parts. Apple's retail stores would need additional repair space and staffing. Printers also introduce a new class of tech support problems that Apple currently avoids. Finally, unless Apple were to make the print engine, it wouldn't make the ink, and that's where all the money is.

There are hundreds of printers available to today's Mac users at no cost to Apple. There's no money to be made by competing with those companies. Unless Apple has a game-changing



printing technology hidden in its labs somewhere—and there's no indication that it does—then printing is a game Apple can't beat. The only winning move is not to play.

Matt Deatherage is the publisher of *MDJ* and *MWJ*, journals for serious Macintosh users.

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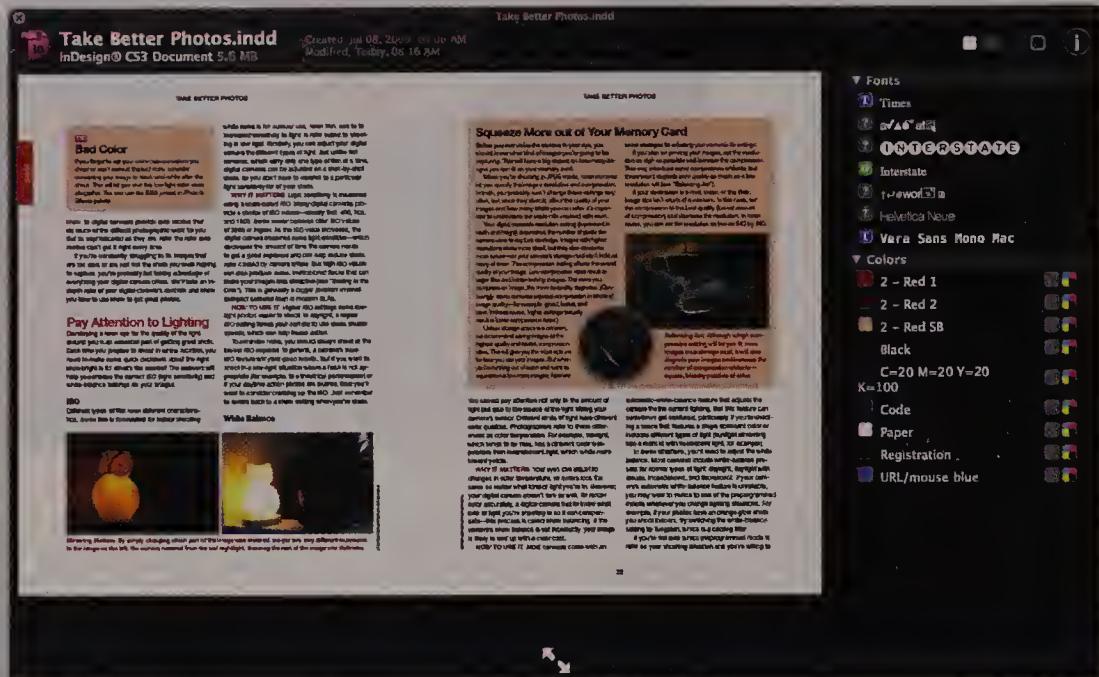
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SneakPeek Pro 1.3

PRODUCTIVITY A few months back, I reviewed SneakPeek Photo, a plug-in that improves Quick Look image previews (888; macworld.com/5390). SneakPeek Pro, from the same developer, provides similar benefits for people who work with graphics and publishing files. With SneakPeek Pro installed, Quick Look supports Adobe Illustrator and InDesign documents and templates, Adobe Swatch Exchange documents, Adobe InDesign XML Interchange files, Free-Hand MX documents, and Encapsulated Postscript (EPS) files.

Select one of these types of files in the Finder and press the spacebar, and the resulting Quick Look preview will show not only a high-resolution preview

of the document itself, but also additional details about the file: the filename, type, and size; the creation and modification dates and times; and all fonts, images, and color swatches used in the file. (Note that to get the best preview quality, you should save your files with higher-quality previews—an option in InDesign and other graphics programs.)

Because Mac OS X's Cover Flow feature takes advantage of Quick Look plug-ins, installing SneakPeek Pro also lets you browse high-quality previews of your graphics files in the Finder's Cover Flow and Column views, as well as within Open and Save dialog boxes.

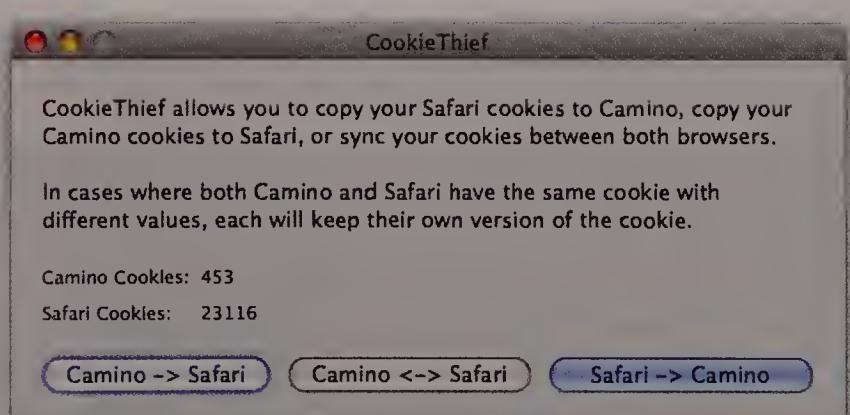
888; \$20; Code Line; macworld.com/5706



iMedia Browser 1.2.1

PRODUCTIVITY Apple's iLife suite makes it easy to share your media—photos, music, and movies—between iLife's programs thanks to a handy media browser. Karelia's iMedia Browser is a look-alike, stand-alone program that provides iLife-style media access to all applications, while also extending access to media stored in Aperture, Lightroom, and GarageBand, as well as in Finder folders. Launch iMedia Browser, click the toolbar icons for the media type you want, browse (and preview) your media, and then drag the desired item to an e-mail message, an iChat window, a folder or volume in the Finder, or a program that accepts media.

888; free; Karelia Software; macworld.com/5702



CookieThief

WEB If you switch between Safari and Camino, CookieThief lets you copy cookies—the tiny chunks of data that let Websites remember who you are, when you last visited, and how you prefer to use each site—between the two browsers. After you use CookieThief, sites that remember your identity and settings—for example, Amazon.com and Twitter—in one browser will similarly remember you in the other.

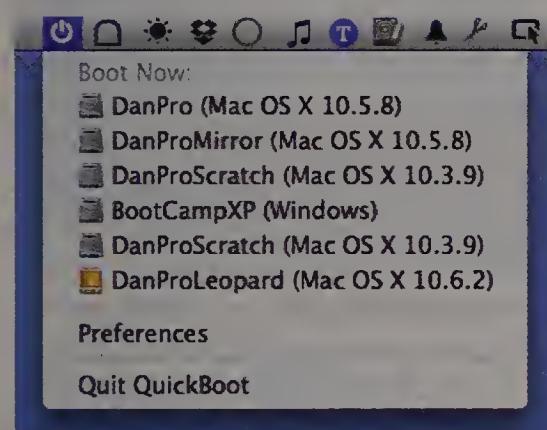
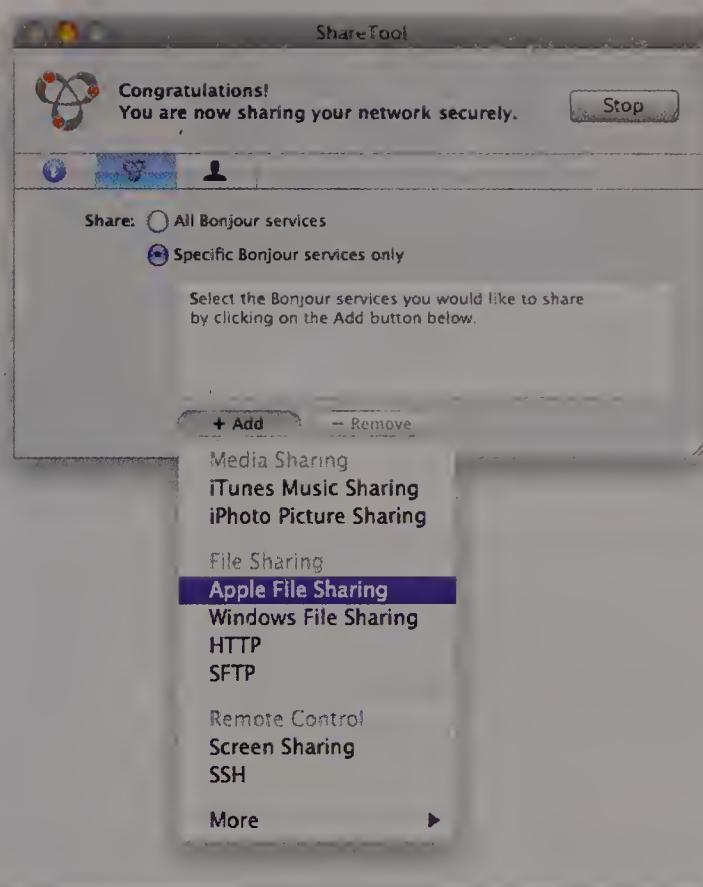
888; free; Stuart Morgan; macworld.com/5704

ShareTool 1.3.4

NETWORKING Mac OS X's Back to My Mac feature allows you to access your home Mac from elsewhere on the Internet—provided you're a MobileMe subscriber. If you're not, or if you haven't been able to get BtMM to work, ShareTool is a good alternative. ShareTool relies on—and extends—Bonjour (Apple's protocol for "advertising" services over a local network) in order to let you securely share, over the Internet, those services, as well as any services that computer can reach on its local network. Such services include OS X's own printing, screen sharing, iTunes Sharing, and iPhoto Sharing, as well as third-party services. If software uses Bonjour to advertise its services, ShareTool can make those services available over the Internet.

You need at least two copies of ShareTool: one installed on the computer providing access to services and local resources (for example, your home computer) and one on each remote computer. Once you've set everything up properly, you connect from the remote computer by entering your home computer's IP address or hostname, along with the OS X username and password you use on your home computer. You'll then see a list of available services you can access, grouped by category.—GLENN FLEISHMAN

3.5; \$20; yazsoft.com/5703



QuickBoot 1.0.4

UTILITIES If you frequently use Boot Camp to boot into Windows, or if you boot from different volumes to test software in various versions of Mac OS X, QuickBoot provides a convenient way to switch startup volumes. Just choose a volume from QuickBoot's systemwide menu to reboot from that volume. The next time you restart normally, your default startup volume will be used.

3.5; free; Buttered Cat Software; macworld.com/5701

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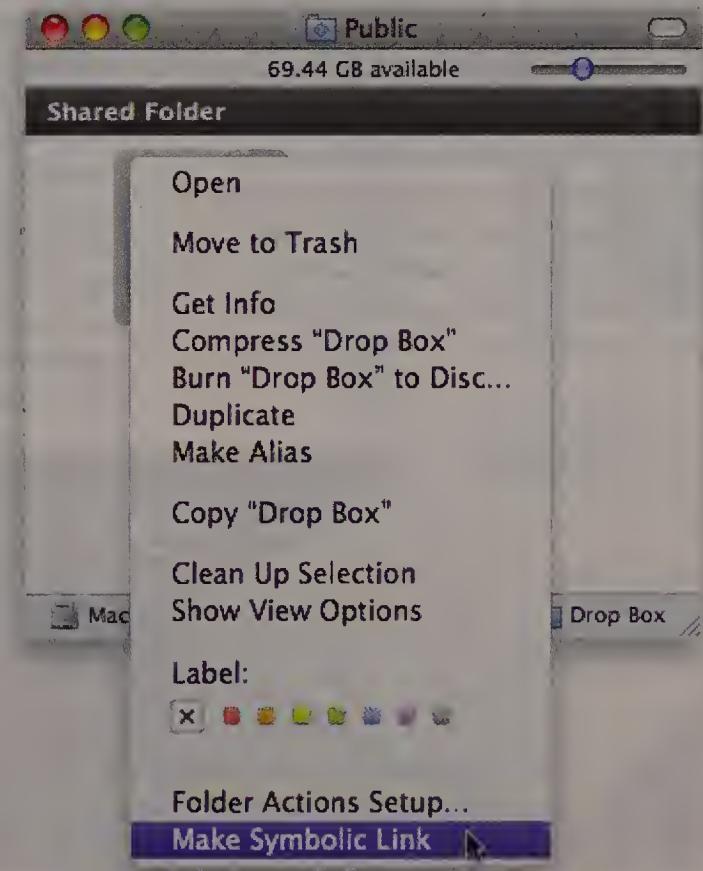
SymbolicLinker 2.0

UTILITIES While Mac OS X, like OS 9 before it, supports traditional Mac aliases, some of the Unix underpinnings of OS X don't: Many Unix programs and services see a Mac alias as a useless file. To get OS 9-like functionality with classic-Mac-unfriendly software, you need to use Unix-style *symbolic links*—also called *symlinks* or *soft links*. (You may see mentions of symbolic links in our Mac OS X *Hints* column or when browsing MacOSXHints.com.)

The catch is that while the Finder makes it easy to create aliases, it doesn't provide a way to make symbolic links. Unix pros create them by using the `ln -s` command in Terminal, but a more convenient method, especially if you're currently working in the Finder, is SymbolicLinker, an OS X add-on that adds a Make Symbolic Link command to the Finder's contextual menus.

Just Control-click (or right-click) an item in the Finder and choose Make Symbolic Link, and a link to that file is created. (The link will usually appear in the same folder as the original file or folder; however, if you don't have permission to create a new file in that directory, the link will be created on your desktop.) The link looks just like a Mac alias, and you can move it to wherever you like.

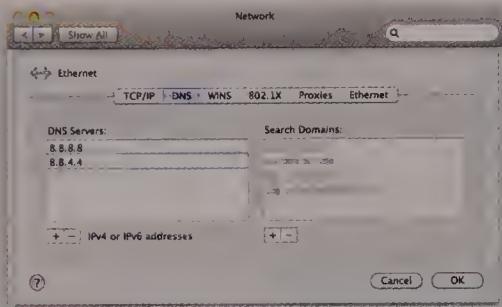
3.5; free; Nick Zitzmann; macworld.com/5705





Macworld Hot Stuff

WHAT WE'RE RAVING ABOUT THIS MONTH



Google Public DNS

Domain Name Servers translate a plain-English Internet address (such as 'www.macworld.com') into the numeric IP address your Mac needs to connect to it. If you're like most people, you probably use your ISP's default DNS settings. But there are third-party DNS services, such as OpenDNS, that can often be faster, more reliable, and sometimes more secure than your ISP's. Those third-party services now have some big-name competition: Google recently unveiled its own free Google Public DNS. Using Google's service is simple: You open up the Network pane in System Preferences, select an active network connection, click the Advanced button, and then enter **8.8.8.8** and **8.8.4.4** on the DNS tab; the whole process took me about a minute. (You may have to change the DNS settings on your router, too.) Once I'd switched to Google's service, I found that DNS lookups were indeed faster. I also like the fact that, unlike OpenDNS, Google doesn't send me to an ad-soaked error page whenever I mistype a Web address (macworld.com/5724).—LEX FRIEDMAN

TruePower UCS Power Outlet

When you're traveling, you can charge or power some gadgets—including iPods, iPhones, Bluetooth headsets, and game consoles—from your laptop's USB ports or a USB AC adapter. When you're at home, FastMac's \$10 TruePower UCS Power Outlet with Built-in USB Ports offers a more elegant solution. The TruePower UCS replaces a standard two-outlet AC wall box with one that adds two 5-volt, power-only USB ports. If you've never replaced a wall outlet before, FastMac's installation video can give you an idea of whether you want to make the swap yourself (fastmac.com).—DAN FRAKES



Notify 2 Pro

The original Notify was just an e-mail-notification app. But Vibealicious has made the \$10 Notify 2 Pro a capable yet simple e-mail client that sits in your menu bar. The user interface features tabs for each e-mail account, which make it easier to tell which account you're reading or sending from. You can send and preview entire messages from Notify's drop-down user interface, without opening a separate window. There's support built in for multi-touch gestures so you can easily change tabs, as well as support for fully customizable sound and visual notifications. Notify 2 requires Mac OS X 10.5 or later (vibealicious.com).—NICHOLAS BONSACK



Socialite

Realmac Software's \$20 Socialite (formerly EventBox) lets you follow Twitter, Facebook, Google Reader, Instapaper, Digg, Flickr, and RSS feeds in a single window. It also lets you participate in those social networks—replying and retweeting on Twitter, posting photos to Flickr, sharing headlines in Google Reader, and more. It supports multiple accounts for each service; there's even a silent mode, which suppresses any Growl alerts you may have enabled (realmacsoftware.com).—DAVID CHARTIER

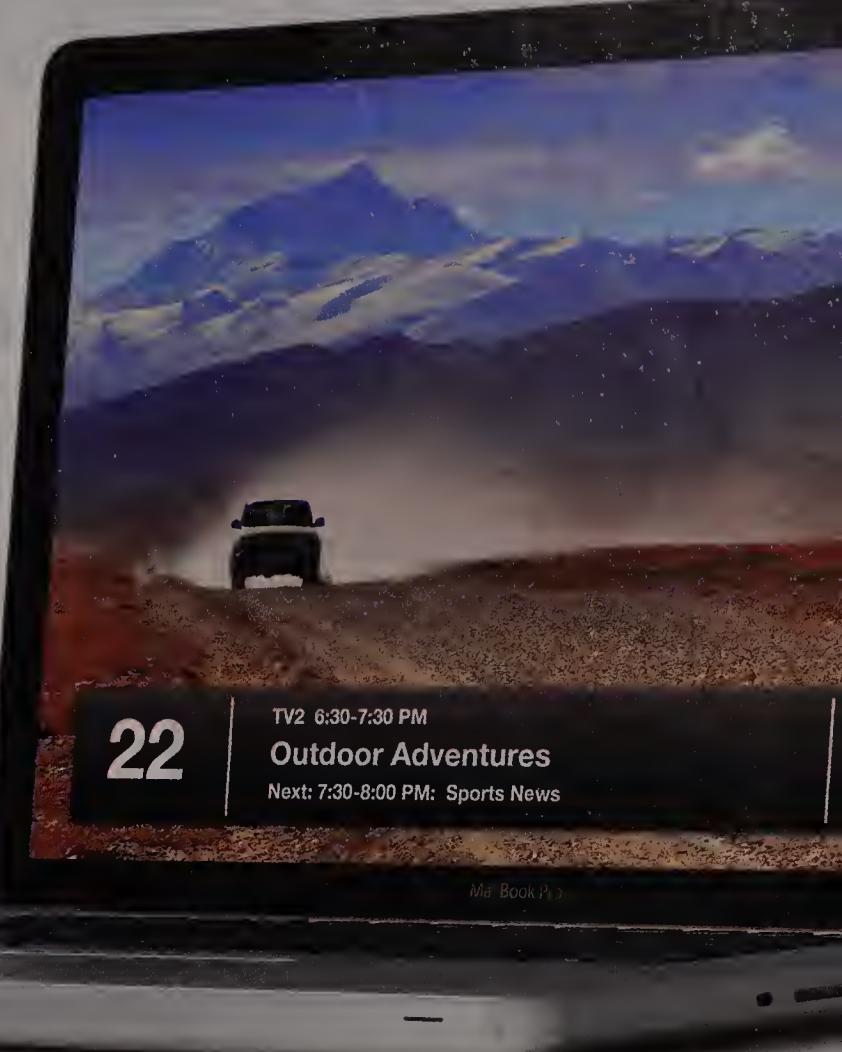


PORTABLE LAPDESK N315

There are plenty of laptop desks out there—those thin platforms that protect your legs from the heat of your notebook and help the notebook itself stay cool, but Logitech's \$30 Portable Lapdesk N315 stands out. It's more attractive than many others, and its rounded edges and soft bottom should be more comfortable. It has an antislip surface and a slide-out mousing tray (so you can use your favorite travel mouse). The N315 accommodates 15-inch and smaller laptops, and is slim enough to fit in your laptop bag (www.logitech.com).—DAN FRAKES



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WITH FRIENDS LIKE THESE...

Apple and AT&T could be headed for a split in 2010—and 2009 may be the reason why

By Dan Moren and Jeff Porten

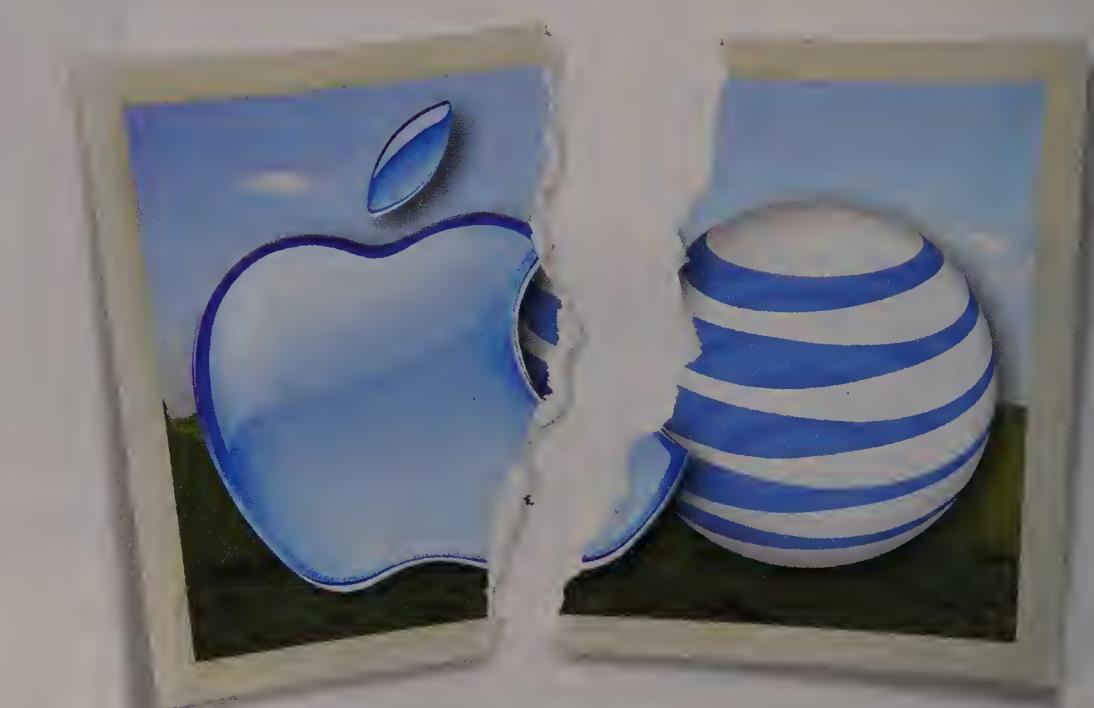
If 2010 sees Apple team up with additional wireless carriers in the United States for its iPhone, it may be due to strains that began appearing in the company's exclusive relationship with AT&T in 2009, especially toward the end of the year. After all, December 2009 saw AT&T finishing last in a customer satisfaction survey and threatening to charge iPhone users more for accessing data.

The customer satisfaction survey came from *Consumer Reports*, which annually looks at how mobile users feel about their cellular service providers. For AT&T, the answer is "not good." The iPhone's exclusive U.S. service provider finished at the bottom of the heap, tied with Sprint.

AT&T got below-average marks on everything except Web access and texting, and scored particularly poorly on voice connectivity. Still, the company continued to pick up subscribers, because that's the only way U.S. customers can get their hands on an iPhone. The iPhone, which nabbed the top-rated cell phone spot, boasted immensely satisfied owners, with 98 percent saying they would buy the phone again, *despite* AT&T's poor service.

AT&T's response to this may not warm customers' hearts. Ralph de la Vega, head of AT&T's consumer services division, told investors that his company's problems stem from users. "We need to educate the customer," De la Vega said. "We've got to get them to understand what represents a megabyte of data. We're improving all our systems to let consumers get real-time information on their data usage."

De la Vega predicts that charging for data is inevitable to protect AT&T's network—and never mind how



customers might respond to it. He made similar comments last October.

Chalk it up as another reason iPhone users consider AT&T to be among the top reasons to consider switching to an iPod touch. AT&T seems ill-prepared to provide decent customer service, given that at least some of its corporate effort is dedicated to "educating" consumers to not use the services they're being forced to buy. (iPhone subscribers are required to pay \$30 each month for unlimited data.)

Perhaps that's why so many iPhone owners are licking their chops waiting to switch to T-Mobile, Verizon, or tin cans and very long strings, just as soon as the Apple exclusivity deal expires. The trouble is, no one really knows when that date is. Industry watchers have assumed that the Apple-AT&T deal runs out in mid-2010, giving the wireless carrier a three-year window of exclusivity with the iPhone. Meanwhile, de la Vega himself hinted last October that the end was nigh for AT&T's hold on the iPhone (macworld.com/5697).

Still, more than just a contract stands in the way of multiple carriers vying for your iPhone business. Verizon and Sprint Nextel feature CDMA-based networks, so Apple would have to come out with new hardware to make its phone compatible with those carriers. T-Mobile, like AT&T, has a GSM-based network, but the two carriers use different bands, which would also require hardware changes unless iPhone users want to hop on T-Mobile's network at slower speeds. (That's similar to the option available to users of the new Google Nexus One smartphone: If they spurn T-Mobile's network for an unlocked phone, they can join AT&T's network—but only at EDGE data speeds.)

Technical issues aside, AT&T and Apple appear ready to go their separate ways. And don't expect iPhone users to hope for a reconciliation.

Dan Moren is a *Macworld* associate editor. **Jeff Porten** is an Internet consultant and freelance tech writer in Philadelphia.

NUANCE iPhone APPS POWERED BY YOUR VOICE

By Philip Michaels

Nuance Communications is giving people plenty to talk about on the iPhone, with two mobile apps that use the company's speech-recognition technology: Dragon Dictation (macworld.com/5663) captures your voice and converts it into text for e-mail and SMS messages; Dragon Search (macworld.com/5664) offers voice-based Web searches.

Nuance is best known for its Dragon NaturallySpeaking speech-recognition software on the PC. Its NaturallySpeaking technology is used in MacSpeech Dictate on the Mac platform. But Nuance's newest iPhone and iPod touch offerings could help the company make a name for itself on the mobile side.

Dragon Dictation lets you record a message and then decide whether to send

the voice-to-text conversion via e-mail or the iPhone's Messages app. You can also copy your message to the Clipboard for pasting into another app. As for Dragon

Search, it too converts your spoken words into text, but it uses the text to look for your search term via Google, Wikipedia, YouTube, iTunes, and Twitter, among others.

Nuance's iPhone debut came with some controversy. The Dragon Dictation app uploads the names of your contacts to make it easier for the app to convert those names into text. Some users objected that the

app did this automatically, so Nuance released an update in December that lets users opt out of uploading contact names to Nuance's servers.

Both apps are free downloads.



iPhones: Current Lineup

PRODUCT	SPECS	RATING	PRICE ^A	DISPLAY	PERFORMANCE	FIND CODE ^B
iPhone 3G and 3GS	8GB(3G)	4 1/2	\$99	3.5-inch color	5 hours of 3G Internet; 5 hours of 3G talktime	4184
	16GB (3GS)	4 1/2	\$199	3.5-inch color	9 hours of 3G Internet; 5 hours of 3G talktime	4955
	32GB (3GS)	4 1/2	\$299	3.5-inch color	9 hours of 3G Internet; 5 hours of 3G talktime	4956
iPod Touch	8GB	4 1/2	\$199	3.5-inch color	36 hours of music playback; 6 hours of video playback	3864
	32GB	4 1/2	\$299	3.5-inch color	36 hours of music playback; 6 hours of video playback	3865
	64GB	4 1/2	\$399	3.5-inch color	36 hours of music playback; 6 hours of video playback	3866

All prices are Apple's prices. In a browser's address field, typing in a find code after macworld.com takes you to a product's review or overview.

What's New at the App Store

Pastebot Brings Clipboard Management to the iPhone



There's a new bot in town, courtesy of Tapbots. The developer, which already makes Weightbot for tracking your weight and Convertbot for converting measurements, now offers Pastebot (macworld.com/5665), a \$2 clipboard utility that uses iPhone OS 3.0's copy-and-paste tools to copy anything in any other app. Launching Pastebot automatically inserts the copied item to the clipboard, where you can edit text, crop photos, add color filters, or wrap lines in HTML tags. In addition, Pastebot lets you organize clippings into folders, copy them back to the iPhone's clipboard for pasting into other apps, and send clippings via e-mail.—DAVID CHARTIER

See the Stars, Find the Shows



Those endless debates about what celebrity starred in which motion picture will be a thing of the past now that the Internet Movie Database has released a free iPhone app (macworld.com/5666). The app includes the same detailed information about more than 1.5 million movies and TV shows that you can find on IMDb's Website (www.imdb.com)—and in a clean, easily navigable format.—ALISON PIPER

Chronos Pairs NoteLife with SOHO Notes



Chronos has rolled out NoteLife (macworld.com/5723), a \$5 app the developer describes as a "media-rich note manager." NoteLife lets you create and store notes containing all kinds of media—text, photos, movies, voice recordings, and bookmarks. While it works fine on its own, NoteLife's real value comes as a companion to Chronos's SOHO Notes desktop note manager for the Mac.—DAVID CHARTIER

App Store Utilities Barry Egerer

Live Cams

Description

#1 Application in the United States! - Dec 18 2009

Barry Egerer Web Site > Live Cams Support >

What's New in Version 3.03

Toonabe presets with spaces in the names weren't working properly; this is now fixed!

Return of fullscreen video! The side and bottom bars will now slide in and out of view by a single tap on the video screen.

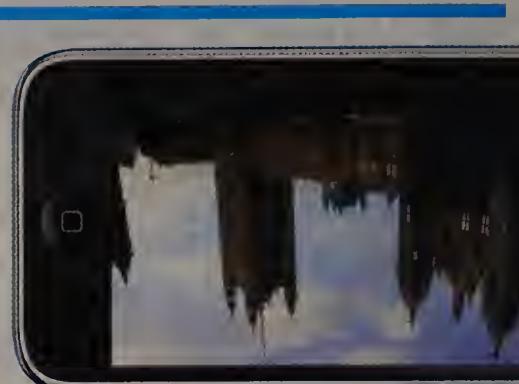
Screenshots

Customer Ratings

Customer Reviews Current Version (177) All Versions (865)

Write a Review >

Sort By: Most Helpful



iPhone Hints: Locking Picture Orientation

By Dan Moren

Here's a problem you've probably encountered while trying to show someone else a picture in your iPhone's Photos app. As you pass your phone around for others to view, the accelerometer keeps flipping the image from portrait to landscape to upside-down landscape and back again. Annoying, right?

As it turns out, there's an easy way to fix this (at least in iPhone 3.1.2): Just tap and hold on the image for a second or two, and the phone will lock it into position. This might cause a "Copy" bubble to pop up, but it will disappear after a moment, and the image will remain locked in that orientation, no matter which way you flip the phone. To unlock it, you simply tap the image again.

There are some exceptions to this method, though. While the hint works if you're zoomed in on an image in portrait mode, it doesn't if you're zoomed in while in landscape orientation, which suggests this is a bug rather than an intentional feature. Unfortunately, this trick also doesn't appear to function in any of the other apps in which I tried it. But hopefully it will at least simplify the process of trying to show the grandparents pictures of the kids at your next family get-together.

Got a hint you'd like to share? Drop us a line at iphone@macworld.com, with the subject line 'iPhone Hint.'

THE APP STORE'S NEW LOOK

By Dan Moren

Apple has rearranged the boxes on its virtual retail shelves again, tweaking the layout for the App Store. The changes, which rolled out just before the new year, bring the App Store's look into line with the rest of the iTunes Store (which was itself overhauled last fall with the release of iTunes 9).

The new layout focuses much more on the visual appeal of the application page. Each app entry features a much larger icon and a more prominent placement of the app's screenshots, which now appear near the top of the page in a horizontal-scrolling gallery similar to the way they appear on the iPhone version of the store. As a result of the higher screenshot placement, the description and list of recent changes have been truncated to just three lines. To expose the full description or list of updates, the user must click a link. This reduced emphasis on descriptions may be Apple's way of dealing with this often-abused field, which some vendors have pumped full of search terms and extraneous information.

Information about the app, including its category, date of last update, and

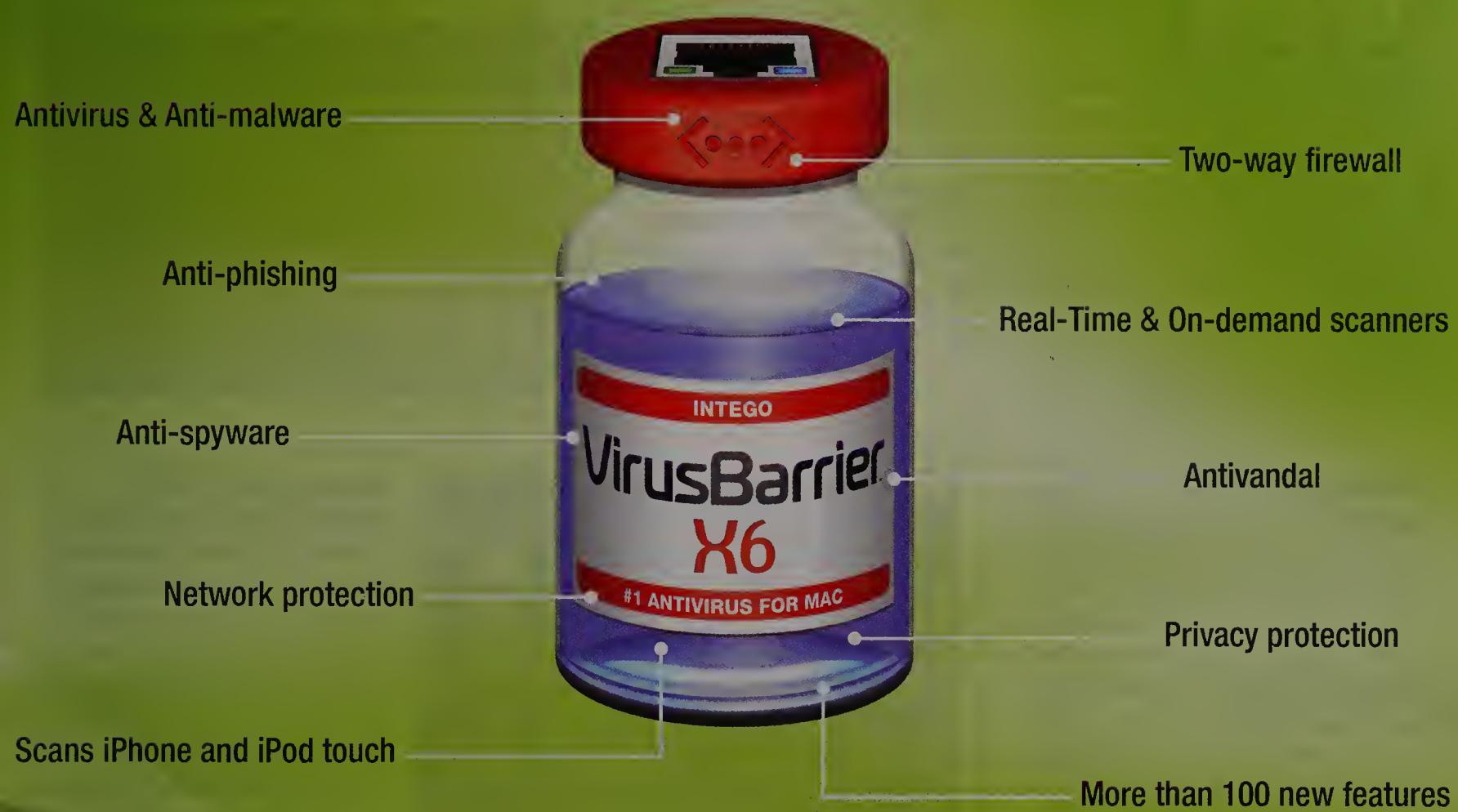
current version number, now appear below the icon and purchase link. Apple has also added the same drop-down menu of sharing features that's within the iTunes Store for music, movies, and other media entries. You can now e-mail a link to an iPhone or iPod touch app, or share a link on Facebook or Twitter.

On the whole, the store looks cleaner and more modern than the previous incarnation did, although not everyone has hailed the changes. Craig Hockenberry, The Iconfactory's senior software engineer, dinged the revamp for focusing on the superficial. "When was the last time you saw a movie just because you liked the poster?" he asked in a post on Twitter.

Which brings us back to the perennial complaint about Apple's treatment of the App Store: that the company's updates of the interface amount to little more than rearranging the deck chairs on the *Titanic*. With developers still struggling with the vagaries of Apple's approval process, it would seem that there are more pressing issues facing the growing iPhone app market.

NEW

Much more than just an antivirus



Protect your Mac from malware and network threats

Only **VirusBarrier X6** provides comprehensive protection from malware and network threats. VirusBarrier X6 is the only antivirus program for Mac that includes full anti-malware protection together with two-way firewall, network protection, anti-phishing, anti-spyware features and more. VirusBarrier X6 protects Macs from all known network-based threats, as well as all known malware.

Also available is **Internet Security Barrier X6**, which includes VirusBarrier X6 and four other Intego programs, providing parental control, backup, antispam, confidential document protection features and much more.

Intego X6 software is priced lower than X5 versions, and the standard licenses protect up to 2 Macs. Also available: 5-Mac family packs and multi-seat licenses.



www.intego.com



we protect your world



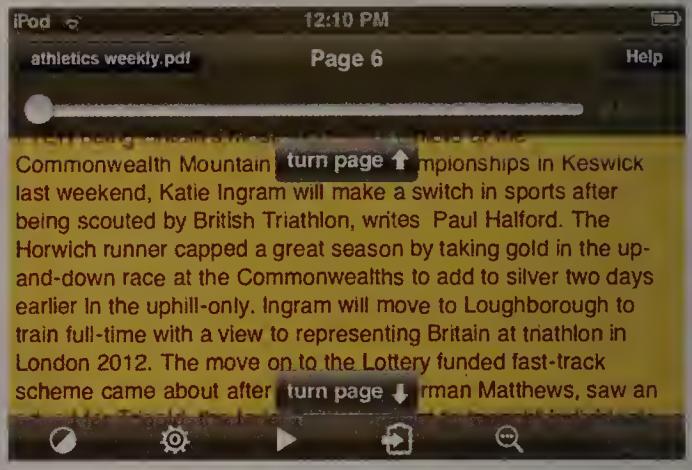
App Guide

iPhone and iPod touch software that's caught our eye

GoodReader 2.4

PRODUCTIVITY Not only does GoodReader let you look at PDFs on your iPhone and iPod touch, but it also lets you view Microsoft Word, HTML, text, and image files; listen to audio files; and watch videos. It's easy to import all these files via Wi-Fi, through a Web browser, or from personal storage sites such as MobileMe iDisk, Google Docs, and Dropbox. But where this app truly shines is in the reading experience. GoodReader easily converts PDFs into text, reformatting that text into an easy-to-read, searchable document with smooth transitions between landscape and portrait views. Flip through pages with a finger swipe or via the autoscroll function, which scrolls through text at a speed of your choosing.—JEFF MERRON

4½; \$1; Good.iWare; macworld.com/5645



CalenGoo 1.2.11

ORGANIZATION This impressive app provides the integration with mobile devices that Google Calendar users have been waiting for. You can opt to display your calendar in column, grid, list, or day-by-day view, while settings let you alter everything from the colors in the interface to how often you sync with your Google Calendar. Adding new events is the intuitive kind of process you'd expect from iCal, but with the added functionality of Google Calendar, such as letting you invite folks to events and pull contacts from your address book to add attendees. Bouncing back and forth between your online calendar and the app itself is practically seamless.—ROB DE LA CRETAZ

4½; \$7; Dominique Andr Gunia; macworld.com/5649



appreciate. EA has spiced up the gameplay by giving each token its own animations and sounds as your piece moves around the board—the top hat's ability to flip is especially fun—and several buttons along the bottom of the screen make it easy to control the property-buying action.—TIM MERCER

4½; \$5; Electronic Arts; macworld.com/5648

Monopoly 1.1.13

GAMES Having already delivered an updated spin on Monopoly with Monopoly Here & Now (4½; macworld.com/5647), Electronic Arts goes back to basics with a classic edition of the iconic board game. The result is a fun trip down memory lane—and past Go—that any fan of the game of property, hotels, and top hats will

LogMeIn Ignition 1.1.130

NETWORKING When it comes to remotely operating Macs and Windows machines with a mobile device, LogMeIn Ignition stands out for its simple setup and Multi-Touch controls. Some of the controls may take some getting used to—by default, the app keeps your virtual mouse fixed in the center of the screen, while you move the desktop underneath. But after a while, you may find it easier to use than the “normal” method of moving the mouse. (And if you don’t like it, you can change the behavior in the app’s settings.) If you depend on having reliable remote access no matter where you are, this is one app that deserves a place on your mobile device.—BRIAN BEAM

4½; \$30; LogMeIn; macworld.com/5646



TOP APPS

Get Pumped

FitnessBuilder 4½
Make sure that every workout goes according to plan (macworld.com/4987).

iFitness 4½
macworld.com/4432

Absolute Fitness 4½
macworld.com/5661

Find more great fitness apps for your iPhone at macworld.com/5662.



BlogPress 1.5.1

PRODUCTIVITY For producing blog entries on the go, it's hard to top BlogPress. The mobile blogging tool easily handles landscape mode, and its intuitive interface makes adding tags and tapping out your pearls of wisdom a breeze. It posts pictures effortlessly, without being picky about which photo service you happen to use. And if you have multiple sites to manage, BlogPress lets you access more than one account. Other blogging apps—like the serviceable BlogWriter (3 1/2; macworld.com/5699)—handle the basics well enough, but BlogPress gives you a full array of tools for sharing your thoughts with the world.—JEFF PHILLIPS
3 1/2; \$3; CLT Studio; macworld.com/5651

DSLR Camera Remote Professional Edition 1.2.0

PHOTOGRAPHY If you have a digital SLR from Canon or Nikon, this app provides remote capabilities for many models, including a live view that transmits to your iPhone or iPod touch a through-the-lens look at what you're shooting. (This version lets you change settings as well as view and take pictures; a \$2 Lite version [macworld.com/5700] only displays and snaps pictures.) Setup is straightforward, and, despite some limitations, the app is fun to use. It gives photographers an inexpensive tool for serious studio work and on-location shooting with a laptop and many Nikon or Canon DSLRs.

—SALLY WIENER GROTTA AND DANIEL GROTTA

3 1/2; \$20; onOne Software; macworld.com/5650



ESSENTIAL APPS

Mind Games

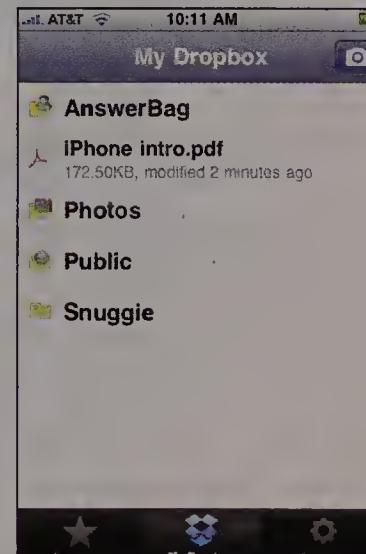
Keep your gray matter razor sharp with these mental-exercise apps (macworld.com/5698).

Marple 3 1/2 This Sudoku-style puzzler will test the limits of your logical powers.

Crosswords 3 1/2 It's a ten-letter word for "mobile puzzle app."

Miss Spell's Class 3 1/2 A spelling checker isn't here to bail you out now, mister.

Geomaster Master geography, and you master the world.



Dropbox 1.0.1

PRODUCTIVITY

Dropbox is a cool service for storing and syncing files online so that they're accessible from multiple computers. You can view all kinds of documents—such as Word files, Excel spreadsheets, and PowerPoint presentations—so that you can get to the latest versions of your most important files without any fuss.

There's no way to edit files or create new text files, but this initial version of the app packs in plenty of functionality for Dropbox users.—LEX FRIEDMAN
3 1/2; free; Dropbox; macworld.com/5652

More Reviews

See more iPhone and iPod touch apps we've tested at iPhone Central (macworld.com/4164).

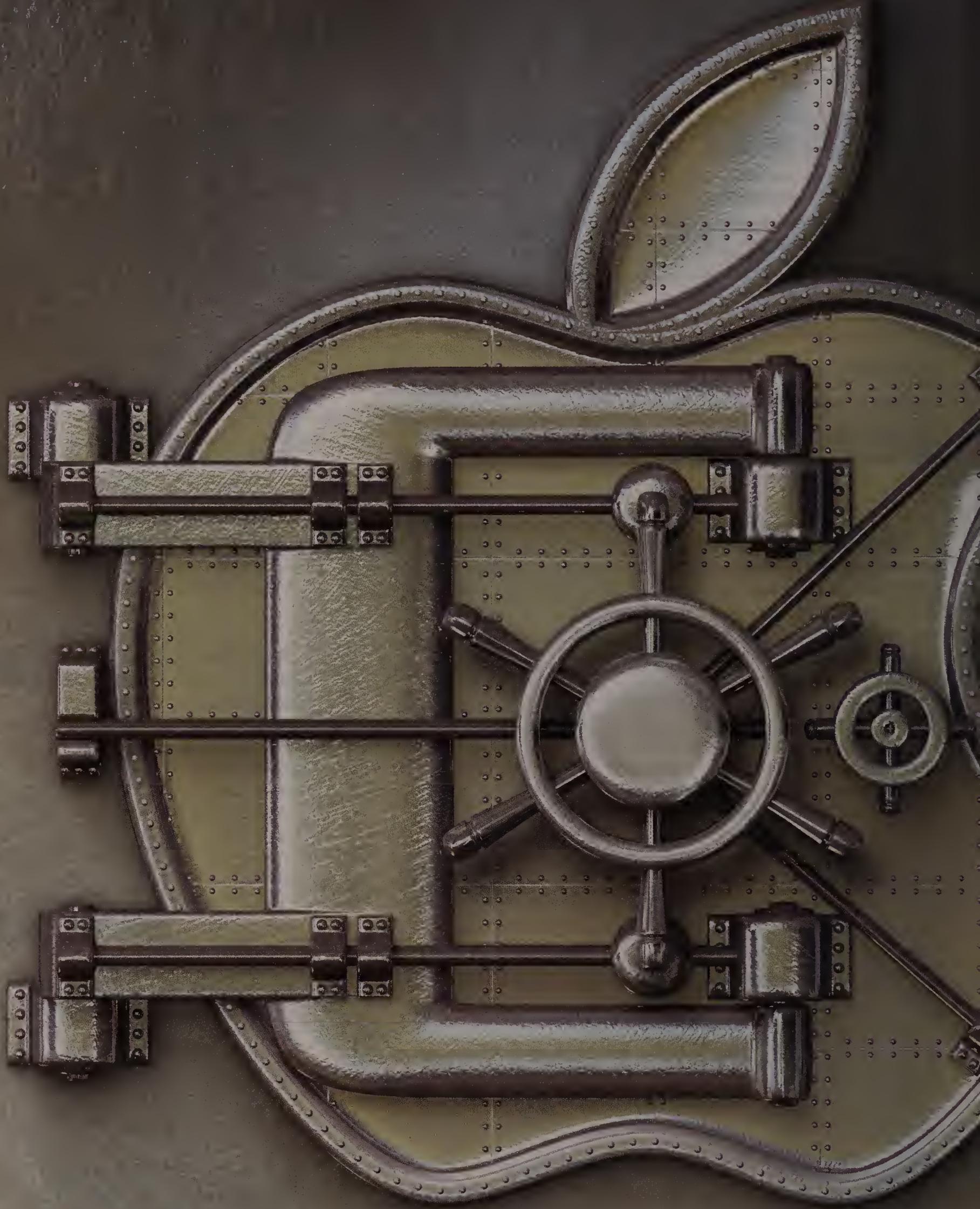
APPLICATION	DESCRIPTION	PRICE	RATING	FIND CODE*
A Masterpiece Collection 1.0.9 CodingArt	e-reader	\$1	3 1/2	5653
Command & Conquer Red Alert 1.1.0 Electronic Arts	game	\$7	3 1/2	5654
Mindjet 1.0 Mindjet	mind-mapping tool	\$8	3 1/2	5655
Pzizz Relax 1.1 Pzizz Technology	relaxation app	\$10	3 1/2	5656
TweetTheBeat 1.0 iDrew Software	music discovery	free	3 1/2	5657

* In your browser's address field, typing a find code after macworld.com/direct directs you to a product's review or overview. For example, macworld.com/5653 takes you to our review of A Masterpiece Collection.

App Guide

Get more reviews, including reader reviews, as well as listings for every iPhone app at AppGuide.com.





13 THINGS YOU SHOULD WORRY



he debate about Mac security is endless. Is the Mac platform inherently safer than Windows? What security measures do Mac users really need to take? But one

point is undebatable: The biggest chink in Mac security isn't the computer itself. Rather, it is often you.

Gullibility, greed, a momentary lack of attention—such human frailties can pose a greater risk to your Mac and your data than any vulnerabilities in computer code. But there is good news in that as well: In many cases, the tools you need to protect your Mac and iPhone are already in your hands.

PROTECT YOUR MAC

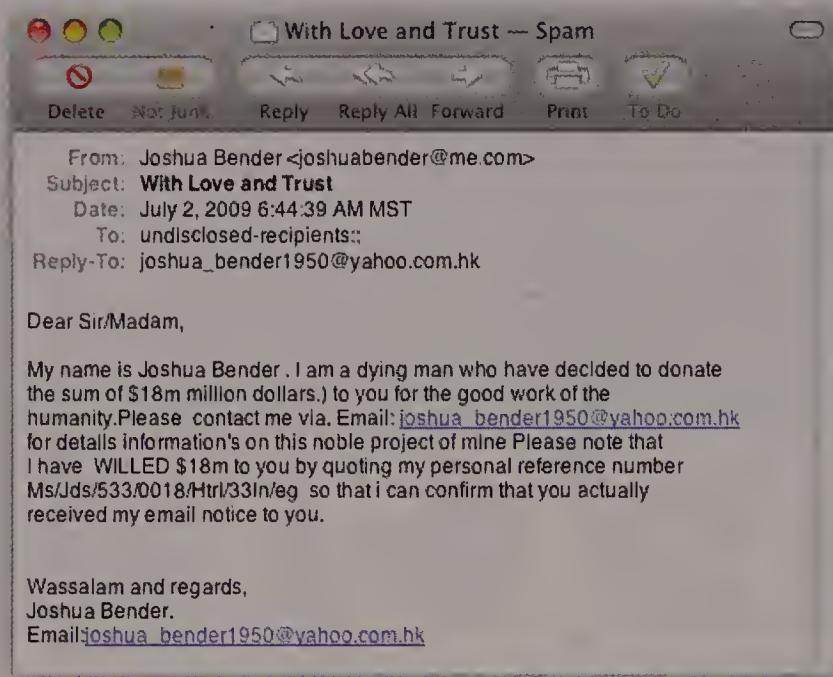
In the pages that follow, I've listed the 13 security threats that I think owners of Macs and iPhones really do need to worry about (as well as four threats that you don't need to worry about now but should be aware of in case they become viable threats in the future). For each of them, I've got advice on how to avoid being victimized. The bottom line: When it comes to protecting your Mac or iPhone from predators, you are the weakest link *and* the best defense.

BY RICH MOGULL | ILLUSTRATION BY JOE ZAFF DESIGN

13 THREATS YOU CAN'T IGNORE—AND FOUR YOU CAN IGNORE

1. E-mail Scams

THE THREAT Mail-based cons have existed since the dawn of the postal service. E-mail has simply provided a fruitful new format, with greater anonymity and more lucrative economics. An attacker today can send out millions of e-mail messages across the globe at practically no cost. If only one person out of a million falls for the scam, the scammer can turn a profit instantly. Because of identity-hiding technology, lax law enforcement, and the Internet's global reach, attackers can operate with near impunity.



Phishing Scam Never click on links in e-mail messages from people you don't know; you never know where the links will take you.

Phishing—when a bad actor sends out e-mail messages designed to trick you into visiting a deceptive Website or divulging personal information—is the most common e-mail scam. Some phishing attacks rely on nothing more than a person's ability to be a creative wordsmith. Others exploit holes in e-mail and Web technologies. For example, the phisher can set up as many as three different fields: the sender's name, the sender's e-mail address, and the address that replies will go to. So an attacker could set the sender's name field (which is what most recipients will look at) to 'account@macworld.com' and the real reply-to address to 'badguy@iamevilandwillstealyourstuff.com'. If you've ever received an e-mail asking you to provide your username, password, or other sensitive info by replying to the e-mail, the trickster was probably using this technique.

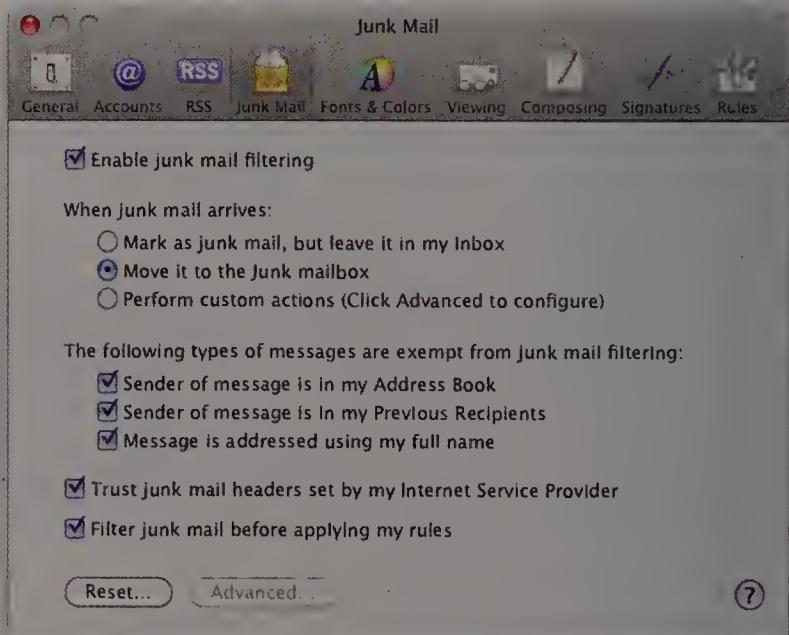
Another trick is to embed a URL in the e-mail that looks trustworthy but really isn't. The scammer might slightly misspell the site's address ('www.macworld.com'),

use a real address as the title of a link that actually points to a malicious site, or create an address that looks legitimate at first but has a lot of gobbledegook at the end ('www.macworld.com.ad#\$Fadfg%\$jamevilandwillstealyourstuff.com'). However they're crafted, such links often lead to sites that look legitimate, but aren't. Those are only some basic examples; phishing techniques are evolving all the time. For example, there are now attacks that send you e-mails directing you to call a fake customer service phone number. When you do so, you'll be connected to a convincingly fake service, complete with long hold times and complex call trees. You'll finally reach a fake customer service representative who then asks for your account number and access code. Other scams are personalized, with just enough specific information to seem trustworthy. Recently, I almost fell for a well-crafted phishing scam pretending to be from the administrator of a private server I'm on.

use a real address as the title of a link that actually points to a malicious site, or create an address that looks legitimate at first but has a lot of gobbledegook at the end ('www.macworld.com.ad#\$Fadfg%\$jamevilandwillstealyourstuff.com'). However they're crafted, such links often lead to sites that look legitimate, but aren't. Those are only some basic examples; phishing techniques are evolving all the time. For example, there are now attacks that send you e-mails directing you to call a fake customer service phone number. When you do so, you'll be connected to a convincingly fake service, complete with long hold times and complex call trees. You'll finally reach a fake customer service representative who then asks for your account number and access code. Other scams are personalized, with just enough specific information to seem trustworthy. Recently, I almost fell for a well-crafted phishing scam pretending to be from the administrator of a private server I'm on.

WHAT YOU CAN DO Your first line of defense against phishing and other e-mail scams should be a good spam filter; these days, most spam is some kind of scam. Virtually all major e-mail services do basic filtering before messages get to your inbox. Many e-mail clients, including Apple's Mail, also include filtering tools. If those aren't good enough, you can purchase add-on tools, such as the excellent SpamSieve (macworld.com/5710).

Your next best defense is wariness. Never click on a link in an e-mail message unless you were expecting it—especially if the message seems to be from your bank, an online retailer, or PayPal. If you get a message like that, navigate to the site directly in your browser. If the message is legitimate, you should see a version of it when you log in to the site. And you should never send sensitive information—especially account numbers, credit card numbers, and usernames or passwords—in e-mail replies. No valid site will ever ask you to do so.



Junk Mail Filtering The first line of defense against phishing and other e-mail-borne scams is a spam filter; the one built into Apple's Mail isn't bad.

2. Banking Fraud and Identity Theft

THE THREAT Most cybercriminals are out to make a profit. Some ways they can do that is by taking control of your system and renting out its processing power and/or network connection (botnets), stealing from your online bank accounts, or selling your credit card or Social Security number.

Mac users are very much a target for banking fraud and identity theft.

Credit card fraud is the most common. While it's possible for criminals to break into your Mac to steal credit card numbers, it's more likely they'll collect them by breaking into an online vendor where you used the card.

Bank account fraud can be worse. An attacker could break into your online bank account and transfer funds out of it. Those funds aren't as well protected as credit card accounts; while many banks will cover the losses, they aren't legally required to do so.

There are several ways attackers can get at your accounts. They can take advantage of flaws in the bank's Website or vulnerabilities in your browser. They can also use the



Automated Clearing House (ACH) system, which empowers direct deposit and other fund transfers: If they know your account and routing numbers, and have a business banking account, they can transfer funds from your account to theirs without your permission.

Finally, there's identity theft—when criminals pretend to be you and create new accounts in your name. Those accounts can range from cell phones and utilities to humongous home mortgages. You can be held responsible for any unpaid charges on those fake accounts. Identity theft is particularly bad in the United States, because we so commonly tie accounts to Social Security numbers; if a bad guy gets hold of your SSN, many of

your accounts and your identity are his to exploit.

WHAT YOU CAN DO Before you give out your credit card to a new online vendor, do some research to make sure the vendor is legitimate. Check your credit card statements regularly, and immediately dispute fraudulent charges. (Attackers sometimes charge small amounts before going for a bigger score.)

To prevent bank account fraud, again keep an eye on your statements. If your bank offers fraud controls for accounts, use them.

To guard against identity theft, request a free credit report from the major agencies (Equifax, Experian, and TransUnion) once a year. Or subscribe to a service like Debix (www.debix.com) or Identity Guard (www.identityguard.com) that monitors your accounts and sends you alerts when they detect changes.

3. Retail and Auction Fraud

THE THREAT Earlier this year my wife decided to use an Amazon gift card she'd received to buy a new Coach purse. She found a bag for slightly less than retail through an Amazon reseller; she ordered it, and it soon arrived as expected—sort of. It was the first Coach purse she'd ever seen with fake leather, bad stitching, and painted plastic, instead of brass, rings. We immediately reported it to Amazon and received a refund. But by then the store had closed shop.

Craigslist, eBay, and other sites that allow people to sell merchandise directly are all subject to fraud. Buyers make payments but then turn around and claim that the item never arrived and initiate refunds from their credit card company or PayPal. Sellers cut and run without delivering items, or request payment through online currency that's not protected in the way that credit cards and PayPal are.

WHAT YOU CAN DO Check the seller's history and reputation score. Look for the number of ratings, not just the average rating. (It's easy to fake a good rating with only a few votes.) Use credit cards, because they allow you to dispute charges, and always request a tracking number with a shipment. When selling, always require a signature on delivery. Finally (repeat after me): If an offer looks too good to be real, it probably is.

[Watch this item](#)

Top-rated seller

(4166)

99.5% Positive feedback

- ✓ Consistently receives highest buyers' ratings
- ✓ Ships items quickly
- ✓ Has earned a track record of excellent service

[Ask a question](#)

[Save this seller](#)

[See other items](#)

[Visit store](#)



Check the Vendor When you're shopping online, note things like eBay's vendor ratings; count the number of votes, not just the overall rating.



Manage Your Passwords Using a password-management tool like 1Password allows you to use a different strong password for every site, without memorizing them all.

4. Poor Passwords

THE THREAT A few months ago, a close friend called me. He was in the midst of an ongoing identity-theft attack: A criminal was posing as him, passing bad checks, transferring funds out of bank accounts, and changing passwords. When I checked out the problem, I quickly found the cause: He'd been using the same password for all his accounts.

Even some of my colleagues in the security business fall into the same bad habit, using one or two passwords for everything. It's understandable: It's certainly easier to remember just one password than a different one for every account. But once one account is compromised, all the others will be, too.

A criminal can discover your passwords in various ways. While banks and other providers have password-protection controls in place, other services aren't so diligent. An attacker might find your username and password in a hacked online forum and then try that combination on other online services to see if you use the same credentials there. Or, if they gain access to your e-mail accounts, they can request a password-reset from a Website where you have an account. Some Websites will then send a temporary password to the e-mail account it has on file for you—which the hacker can then intercept and use to log in as you.

WHAT YOU CAN DO Use a password-management tool like Agile Software's

1Password (; macworld.com/3801). Such tools securely encrypt and store all your passwords, and their browser plugins can log you in to sites automatically. They can also generate strong passwords that are effectively impossible to crack.

I still have to remember a few passwords, such as the one for my iTunes account. But the vast majority of my passwords are now long, random, and unique for every site, all of them managed by 1Password.

Don't Worry about It

VIRUSES AND WORMS

There are no technical barriers preventing worms or viruses from infecting the Mac platform. A review of Apple's own security updates will reveal a long list of vulnerabilities that a knowledgeable attacker could exploit.

Still, we have yet to see any widespread malware for Macs.

The reasons for that are the subject of continual debate in the security community. It might be Apple's relatively low market share, or it might be that malware authors have years of experience exploiting PCs. It's probably a combination of those factors.

Whatever the reason, it's frustrating for Mac security vendors, who see the potential for widespread attacks, but never the execution. And until those attacks appear, there's little reason for the average Apple user to invest in antivirus software. The major exceptions are corporate users on a network with Windows users and people who regularly download software from risky parts of the Internet.

5. Sharing Too Much

THE THREAT Out of the box, new Macs expose few network services, and file sharing is disabled. But many power users quickly expose these services and turn on sharing, opening themselves up to potential exposure over the network.

OS X lets you share all sorts of different network services. You can share your Internet connection or open up a Web server with only a few clicks in System Preferences.

In a secure home or office network, opening up such services is rarely a problem. But if those services are exposed when you enter open networks—in hotels, airports, schools, and wireless hotspots—your Mac itself could be exposed to anyone else on that network.

WHAT YOU CAN DO Turn off network services. The easy way is to block all incoming connections in OS X's firewall: In the Security preference pane, select the Firewall tab, click Advanced, and then select Block All Incoming Connections. Even if you've enabled services in the Sharing preference pane, in iTunes, or in other programs, the firewall will now block incoming access.

Identifying Hidden Car Problems as Easy as 1-2-3!



Your "Check Engine" light comes on



2

Diagnose problems with the handheld CarMD device



Print a complete report from your Mac or PC

CarMD for the Mac: Just What the Doctor Ordered

Handheld diagnostic tool saves time and money on car repair

Nobody can afford to waste money on car repairs and maintenance—especially costly and often unnecessary diagnostics by professional mechanics—when your "Check Engine" light is on.

Now, if you're a Mac user, you don't have to. Thanks to a new version of the easy-to-use, handheld CarMD® diagnostic device and software kit, you can save money and time by bypassing the mechanic to obtain accurate diagnostics and likely repair costs.

CarMD is a spin-off from a 50-year-old automotive diagnostic leader, and is designed using diagnostic technology similar to that used by nearly a million do-it-yourselfers and professional mechanics across North America. First introduced in 2006 for the PC, the new, long-awaited CarMD device is a dual-platform Mac/PC version that plugs into your car's standardized data port (usually found right under the steering column). Red, yellow and green indicator lights give you an instant display that all systems are go, or there's a possible problem, or something is definitely wrong. If the light is yellow or red, simply connect CarMD to your Mac or PC via USB cable and log on to www.CarMD.com to discover the problem. If the problem requires service, CarMD's extensive database will arm you with a report listing the probable cause and estimated repair costs in your region of the country.

"If I did not have the CarMD analyzer and computer software I would have wasted approximately three hours going to the dealership," says Robin J., from North Ridgeville, Ohio. "As far as I'm concerned, it has paid for itself already."

A Green Machine

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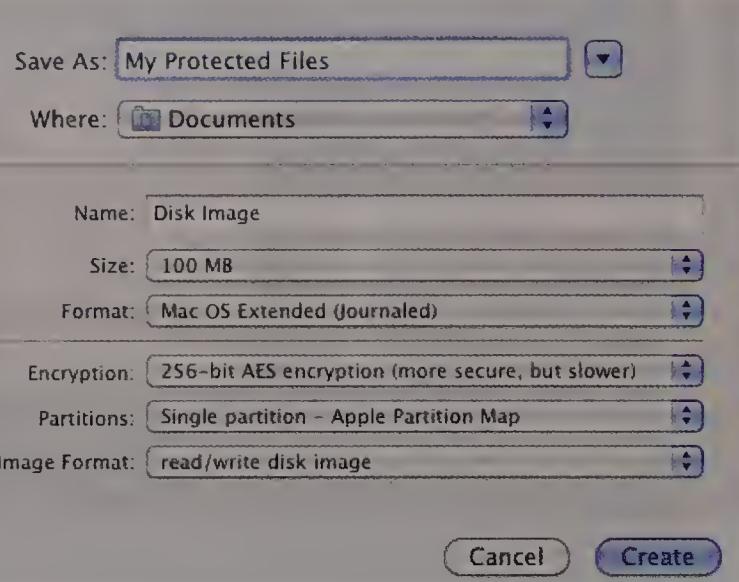
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6. Unencrypted Personal Data

THE THREAT Beyond phishing schemes and hacking online vendors, bad types can get access to your crucial information in other ways: They can gain access to your Mac itself. Whether they do so over your Internet connection or by physically possessing your Mac, if they have control of your hard drive, they have control over the same information—credit card, Social Security, or Tax ID numbers; account passwords; and so on—those other attacks seek.

Finance-management software, plain-text password cheat-sheets, and e-mail messages are the first things any attacker will seek out upon gaining access to your Mac. This is a case where the risk is low, but the potential cost is so high that precautions are worthwhile.

WHAT YOU CAN DO Depending on the information you want to protect, there are two helpful tools built into OS X itself.

To store discrete bits of information—Social Security numbers, for example—your keychain is a good place to do it. When you launch Keychain Access (in /Applications/Utilities/), you'll see a Secure Notes entry in the sidebar on the left. That's where you can save things like SSNs and other information you can type in.

Passwords from Safari, the Finder, and other programs are stored in the Passwords section; you can manually add new ones. If you double-click one of the passwords in Keychain Access, a small window will pop up. Click the

small button shaped like a key next to the password field in that window, and Keychain Access will generate a random password. Everything in the Keychain is encrypted, and you can use MobileMe to synchronize it to other Macs.

If you want to protect entire files, you can use Disk Utility to create an encrypted disk image file (DMG), which you can store or move anywhere and access with a password. In Disk Utility (in /Applications/Utilities/), click New Image in the toolbar, specify a location and size for the file, give it a name, and select your encryption option (128-bit or 256-bit; both are very secure).

This new image file will act just like a removable hard drive: You double-click it to mount it, and then enter the password you specified. If you use finance-management software or keep scans of family documents, your disk image is a great place to keep that data. It's also a good place to store personal data if you share your Mac user account with others.

7. No Backups

THE THREAT Data destruction: It can happen to you, whether by someone surreptitiously doing it or by your own clumsy hand. Losing applications or rebuilding a system is painful, but losing something irreplaceable, such as all your family photos, is the digital equivalent of a fire in your attic. So the most important thing you can do to keep your data safe is to back it up regularly.

WHAT YOU CAN DO I recommend a multiple-backup strategy, with both on- and off-site backups. The costs are higher, but the safety is worth it to me. (I'd be devastated if I lost all the photos of my daughter.) I use Time Machine to back up most of my system locally. I also use CrashPlan (macworld.com/5711) to back up really important files (my entire iPhoto library, my Documents folder) off-site. And I use IMAP accounts for my e-mail, so copies of my messages are stored on my providers' servers.

Don't Worry about It

BOTNETS

The terms *virus*, *worm*, and *Trojan horse* differentiate malware based on how it invades your computer. The term *botnet* refers to what the software does once you're compromised.

A botnet is a collection of infected computers controlled by the attacker. Bad guys use these computers to send spam, distribute malware, or coordinate large, distributed denial-of-service attacks (in which thousands of computers hit a single site at once to overwhelm its bandwidth).

In the past year, we saw one small Mac-based botnet (macworld.com/5716), which had been compromised by a Trojan horse. Since your Mac first needs to be infected before it can be made part of a botnet, the chances that it will end up as part of a botnet are still extremely low.



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8. Cross-Site Scripting

THE THREAT Cross-site scripting (XSS) may sound esoteric. But it's the single most common vulnerability on Websites.

In an XSS attack, the bad guys surreptitiously add code to a Website you trust. That code then tricks your browser into doing things it normally wouldn't—running JavaScript it shouldn't trust, downloading malicious code, changing account settings, or divulging login credentials. This technique has been used against brand-name properties, including Facebook, Google, Microsoft, and Yahoo.

WHAT YOU CAN DO Defending against XSS is difficult, but not impossible. If you use Firefox, you can use the popular NoScript add-on for Firefox to specify which scripts you allow to run, on a site-by-site basis. (Be warned: NoScript is very effective, but it's also disruptive; you'd be amazed how many legitimate scripts you run into during your daily browsing.) An easier option is to use one Web browser for financial sites and another for the rest of your browsing. Using a separate browser reduces the risk of an untrustworthy site using cross-site scripting to

Options...

- ✓ Show message about blocked scripts
- ✓ Place message at the bottom
- Audio feedback when scripts are blocked
- S** Allow Scripts Globally (dangerous)
- R** Revoke Temporary Permissions
- S** Allow all this page
- T** Temporarily allow all this page
- U** Untrusted
- F** Forbid google.com
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- T** Temporarily allow google-analytics.com
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- T** Temporarily allow sharethis.com
- S** Allow googlesyndication.com
- T** Temporarily allow googlesyndication.com
- S** Allow quantserve.com
- T** Temporarily allow quantserve.com
- S** Allow doubleclick.net
- T** Temporarily allow doubleclick.net
- F** Forbid about:blank
- S** Allow macworld.com
- T** Temporarily allow macworld.com

NoScript The NoScript Firefox add-on can prevent Website scripts from running automatically, but configuring it for every site can be a hassle.

break into your bank or retail accounts. (For more on that, see "Supersafe Web Browsing" at macworld.com/5712.)

9. Risky Downloads

THE THREAT While there is virtually no malicious software for Macs circulating in the wild, what little Mac malware we do see is almost always hidden in pirated applications, in software designed primarily to look at naked people, and in gambling programs.

Trojan horses can't self-replicate like viruses or worms. But they can disguise themselves as (or hide within) a program you want to use. Viruses and worms for Macs are extremely rare, but there are Mac-specific Trojan horses.

Right now, the most common source of Mac Trojan horses is pirated software downloaded from the Internet. In 2009, attackers released illegal copies of Apple's iWork '09 and Adobe's Photoshop that were soon circulating on file-sharing networks. This software then infected the

computers of users who downloaded or shared these pirated programs.

The next most common sources of infection are sites that ask you to download new QuickTime plug-ins or special applications—typically, to look at pictures or videos of people in various states of undress. Lastly, sometimes Trojan horses are planted in free software, especially gambling software and simple games.

WHAT YOU CAN DO Instead of looking for free copies of commercial programs,

Don't Worry about It

INFECTED HARDWARE

In the old days, malicious software moved from computer to computer via floppy disk. Once malware moved to e-mail and networks, we mostly forgot about physical media.

But recently, there's been a resurgence of hardware-based attacks. Some attackers have infiltrated supply chains, infecting digital picture frames, storage devices, and—yes—even iPods with viruses. The (overhyped) Conficker virus (macworld.com/5717) used infected USB drives to propagate.

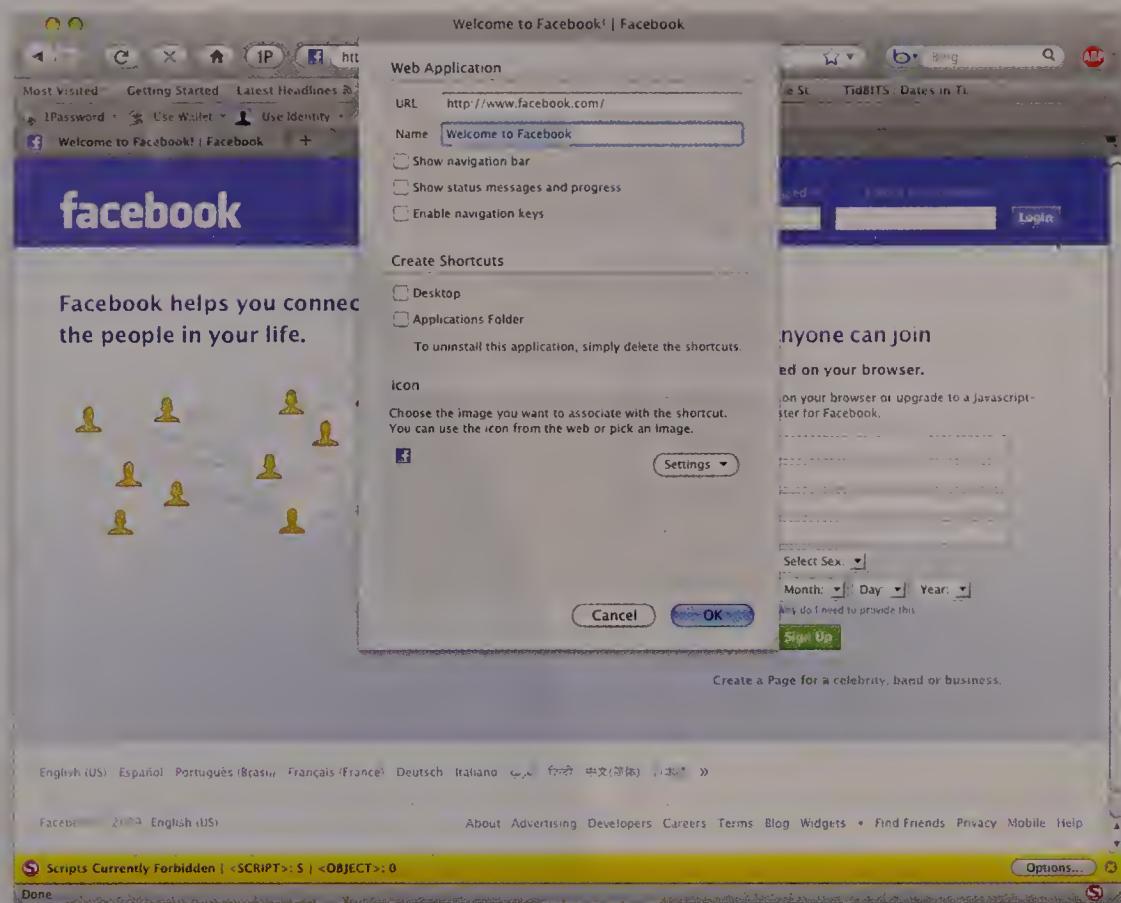
But Conficker aside, this is still mostly a Windows-only problem. That's because of Windows' autorun feature, which automatically launches any software on an appropriately configured storage device. Macs have never had an autorun feature; therefore, they're not affected by this category of malware. That said, Macs *will* open disk image files, and there have been security vulnerabilities in the file system that could lead to an infection with a malicious DMG file. But so far we haven't seen that in real attacks.



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Single-Site Browser One way to guard against malware on a social networking site like Facebook is to create a single-site browser that you use only with it.

10. Antisocial Networking

THE THREAT If the Internet is the Wild West of the digital world, social networking sites are the seedy saloons with bodies occasionally crashing through the front window.

Cybercriminals love social networking sites such as Facebook and MySpace; they're cross-platform and often full of security flaws. Also, users of these sites have a tendency to trust anything one of their friends sends to them. They'll click on links they'd never accept from a stranger. I've seen worms that propagate through social networking friend lists, attackers stealing contact e-mail addresses for spam, advertisements for fake products, and direct browser attacks that aim to take over systems. And once you start installing widgets and applications on a social networking site, you are essentially allowing arbitrary programs to run inside your browser with full access to your information.

WHAT YOU CAN DO When posting information on a social networking site, don't put anything up there that you

wouldn't want the whole world to see; even if you mark something as private, there's no guarantee it will stay that way. Also, carefully consider the applications you allow the site to install—especially on Facebook, where you can't always control the information an application accesses.

You might also consider using a site-specific browser (SSB) for the site. Using a tool like Prism for Firefox (macworld.com/5174), you can create a stand-alone browser specifically for that site; that way, any potential attacks are isolated to that SSB. Just install the Prism add-on in Firefox, navigate to the social networking site, and select Tools ▶ Convert Website To Application. That will create a browser that works just with that site; that way, any shenanigans you might run into on that site will be isolated from your everyday browser.

11. Peer-to-Peer Sharing

THE THREAT Peer-to-peer (P2P) file sharing can be a great way to distribute or download large files. But it's all too easy to inadvertently share things you shouldn't. Researchers have found reams of sensitive information on P2P networks. For example, there have been cases of public employees placing sensitive legal and government documents on home computers that were also running P2P software; those files turned up on the P2P networks.

WHAT YOU CAN DO If you use P2P services, stick with popular clients such as Vuze (formerly known as Azureus [sourceforge.net/]) and make sure you configure it to share only folders that contain no sensitive files. Many of these programs automatically share whatever directory you set as your own download destination, so it's best to create a directory specifically for P2P usage, and occasionally check your application preferences.

Don't Worry about It

BLUETOOTH ATTACKS

Bluetooth wireless technology has some known security vulnerabilities. Macs and iPhones have Bluetooth. But your odds of being victimized by those vulnerabilities are still very low. Even if you accidentally leave Bluetooth file-sharing enabled, it's unlikely you will ever be within range of an attacker with the tools to take advantage of the opportunity.

For the average user, Bluetooth vulnerabilities just aren't worth worrying about.



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12. Jailbroken iPhones

THE THREAT The difference between hacking an iPhone and jailbreaking one is one of semantics. It's *jailbreaking* when we crack our own phone to run software and access parts of the operating system that Apple restricts; it's *hacking* when a stranger does the same thing to our phones.

In either case, whoever is doing it is breaking through the iPhone's security. Specifically, they're disabling application code signing. On a stock iPhone, every app is digitally signed by Apple. The operating system checks those signatures (which are based on strong cryptography) before it allows an app to run. Since the main goal of jailbreaking is to run your own unofficial applications, code signing is disabled.

Trouble is, once you've done that, your iPhone is vulnerable. It's far easier for someone else to run arbitrary applications on your phone. The few malicious iPhone programs seen in the wild affect jailbroken phones only; we have yet to see any attacks that affect stock iPhones. (More than a few vulnerabilities have been reported and

fixed for stock phones; none of them have been exploited in any widespread attacks—yet.)

Jailbreaking is also risky because all iPhones share the same root password. (It's easy to find with a quick Web search.) In a stock iPhone, there's no way to access functions where you would be able to use that password. But jailbroken phones often enable remote access to the phone, using common network protocols such as SSH. If you jailbreak your phone and use SSH or another protocol to enable network access, but you don't change the default password, anyone can easily access your phone.

This is how the first so-called "iPhone worm" spread (macworld.com/5713)—and is still operating. That worm continually scans the network a compromised iPhone is connected to, in order to find

other iPhones with SSH enabled. It then accesses the phone, using the default password, and installs a version of itself on this other iPhone. And then it starts scanning for new targets. Without SSH, the default password, or the ability to run unsigned applications, this worm can't spread. In other words, it works only on jailbroken iPhones with SSH installed and a known password.

WHAT YOU CAN DO As restrictive as official apps might sometimes be, they do offer far more security than those you install after cracking your phone. I personally kept my old iPhone 3G when I upgraded to a 3GS just so I could have a safe phone for jailbreaking; I don't have any sensitive information on it and I've changed the default root password.

13. Lost Mac or iPhone

THE THREAT Macs and iPhones are popular with consumers and criminals alike. While all cell phones and laptops are prime targets for theft, because of their high resale value, Macs and iPhones are especially cherished. If an attacker has to choose between a \$299 netbook and a MacBook Air, the Air's going first.

Losing a prized computing device is the hat trick of security failures: You lose the device, you potentially lose installed software, and you expose your stored personal data.

WHAT YOU CAN DO To prevent data loss, keep your Mac backed up. iPhones back themselves up automatically when synchronized through iTunes, and you can manually trigger a backup by selecting the phone in iTunes, ⌘-clicking, and selecting Back Up.

If you're worried about losing a laptop, use good passwords and encryption. Make sure your Mac requires a password when waking from sleep or hibernation: In the Security preference pane, on the General tab, select Require Password



iPhone Passcode To keep the data on your iPhone safe even if it's stolen, you can implement a passcode and specify that, if the wrong passcode is entered ten times, your data will be wiped.

After Sleep Or Screen Saver Begins. You might also consider using FileVault (macworld.com/2425) to encrypt all of the files in your home directory. FileVault can cause problems with Time Machine and other backup software, but it's free. It

won't stop a smart hacker, but it can keep your data safe from average criminals.

The iPhone has even more security options. In Settings, you can go to General and then Passcode Lock to set a four-digit code to access your phone and specify a time delay before it's activated. If you are a MobileMe subscriber, you can also use the Find My iPhone feature (macworld.com/5714) to physically locate your phone using the GPS location, or trigger a remote wipe (macworld.com/5715). The iPhone 3GS includes hardware encryption, but there are ways to circumvent it, so remote wiping is your best option.

Rich Mogull has worked in the security world for 17 years. He writes for TidBITS and works as a security analyst through Securoris.com.

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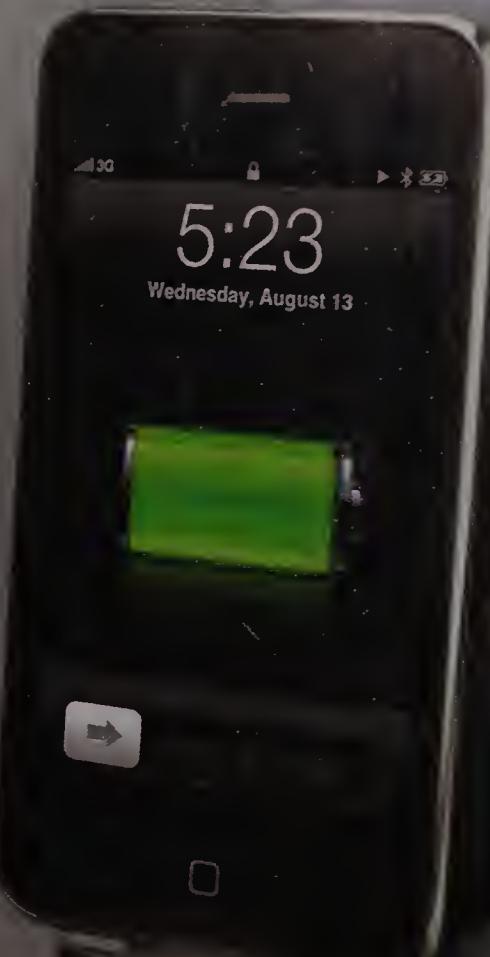
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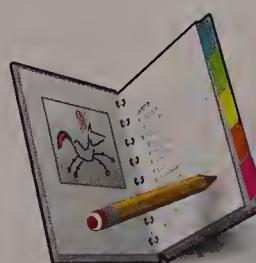
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From paper to pixels

{ How to find the scanner that's right for you }

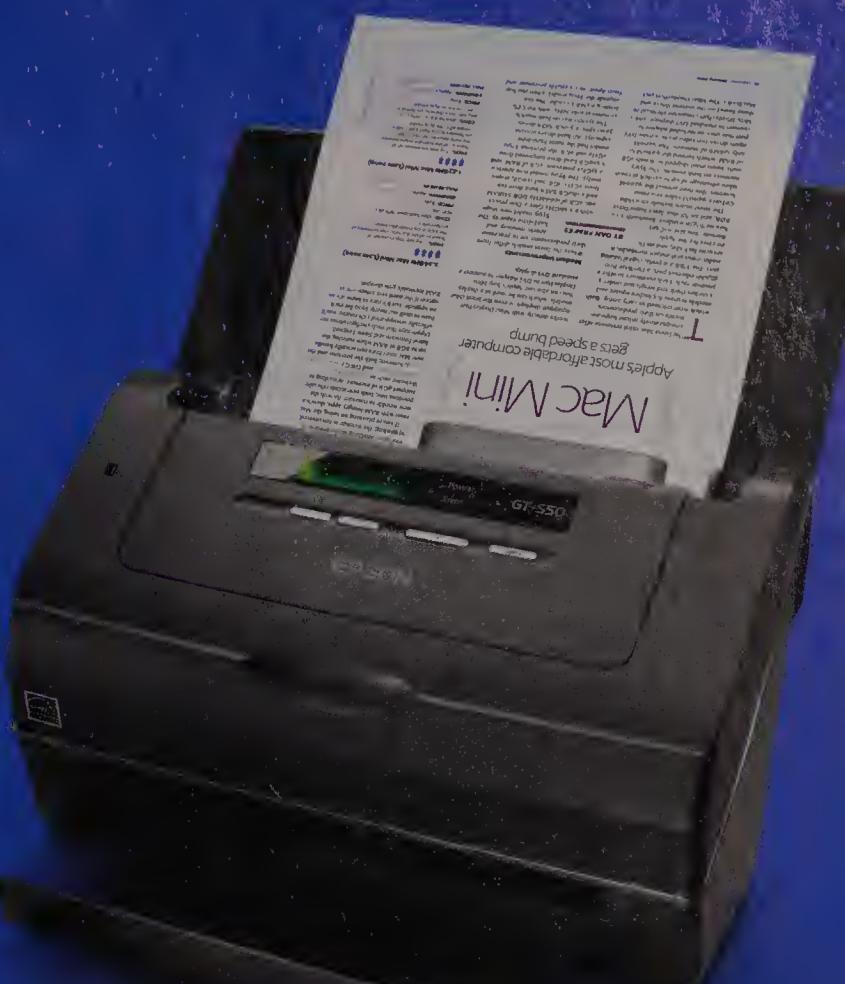
The best way to digitize printed photos, text documents, and other printed media is to use a scanner to scan them yourself. In recent years, the quality and affordability of consumer scanners have improved, making the devices well suited for this type of project.

By performing your own scans, you'll have maximum control over the handling of your media (sometimes the media you need to scan is fragile) and over the quality of your scans. But you need to pick the right scanner to meet your needs. For this review, we looked at three flatbed scanners and four sheetfed scanners and tested each one for speed, image quality, and ease of use. What we found is that

while many scanners are fast performers and are capable of producing good image quality, they also present some usability issues that you'll have to tackle.

Before purchasing a scanner, take stock of the types of media you need to digitize. Do you primarily have photo negatives or prints? Do you have piles and piles of legal documents you'd like to have in digital form? Do you want digital images with better image quality, or digital documents with accurate text?

These factors will have an impact on the type of scanner you choose. For these types of projects, there are two main categories of scanners: flatbed and sheetfed scanners.



Flatbed Scanners: An Overview

If you'll be scanning a variety of media (multiple print sizes, negatives, or photo albums, for example) your best choice is a flatbed scanner. With a flatbed model, you place your media flat on a glass bed, and then an image sensor moves underneath the glass to record a digital version of the item; that file is then saved to your computer. Many flatbed scanners also include adapters for scanning different film formats.

You can pick up a basic flatbed scanner for as little as \$50, but we've found that many of these inexpensive scanners use inferior optics that result in lost detail, inaccurate color, and other problems. For archival projects, you'll want to get the best information possible out of your scans. So spend a little more (at least \$100) for a good scanner.

Resolution (the number of dots per inch [dpi] that a scanner can capture) and bit depth (the number of colors a scanner can detect) were once top considerations when shopping for a scanner. In general, thanks to improvements in scanning technology, resolution and bit depth aren't main factors anymore. Almost all of the scanners on

the market today offer a resolution of at least 2400 dpi. And scanners record either 24-bit or 48-bit color (the more bits, the more accurate the scan will be). The three flatbed scanners that we reviewed actually have a higher resolution of 4800 dpi and record 48-bit color. That's more than adequate for archiving prints that are 4 by 6, 5 by 7, or 8 by 10 inches.

If you want to scan photo negatives or slides, make sure that any scanner you use includes the appropriate adapters. Some scanners have the adapter built into the lid—a nice feature.

Almost all scanners come with their own scanning software, which often includes features such as dust and scratch removal and color correction (although you might prefer to perform serious image correction in a dedicated image editor, such as Adobe Photoshop Elements). If you'll be scanning film as well as prints, you may want to look for a scanner that includes Digital ICE, which uses a special infrared light to detect dust and scratches on your film and then removes any trace of them during the scanning process. Unfortunately, Digital ICE is typically included with only higher-end (read: expensive) scanners.

Sheetfed Scanners: The Skinny

If you'll primarily be scanning text documents, you'll get the best results from a sheetfed scanner. Although they tend to be significantly more expensive than flatbed scanners (costing between \$500 and \$800) and are less versatile, sheetfed scanners take up less room and are much faster than flatbed scanners at scanning text.

Feeding paper through a sheetfed scanner is similar to using the manual feed on a printer: You place a sheet (or a stack of paper) into the feeder, and the paper passes through a sensor that performs a scan. The main drawback to a sheetfed scanner is that you can't scan bulky items, like a book.

Since sheetfed scanners are primarily meant for text documents, most models don't have maximum resolutions and bit depths as high as flatbed scanners do. Take the sheetfed scanners in our roundup, for example: two models max out at 600 dpi, while the third model supports up to 2400 dpi. The same two 600-dpi scanners support 24-bit color, while the 2400-dpi scanner has 48-bit support. For text documents, these specifications are fine.

Why are sheetfed scanners so pricey? They're designed to handle high volumes very quickly—they can zoom through a ten-page document faster than it takes a flatbed scanner to scan a single 4-by-6 picture. Sheetfed scanners are ideal for businesses that handle large amounts of paperwork on a daily basis.

Photos are the Achilles' heel of sheetfed scanners. The scanned image quality is usually mediocre and sometimes even unacceptable. You can use the image results as preliminary drafts or for FPO (for position only) purposes, but they don't give you the quality you need for archiving.

Like flatbed scanners, sheetfed scanners come with their own scanning software. Some have optical character recognition (OCR) programs that take the scans and convert the files so that you can edit them in a text-editing program. Other scanners work with Adobe Acrobat.

Scanning and Snow Leopard: One Step Forward, One Step Back

When Adobe released Photoshop CS4, the company decided not to install the TWAIN scanner driver by default. According to a Tech Note on Adobe.com, you may have problems using Photoshop CS4's TWAIN driver on an Intel Mac. Likewise, HP no longer supports its HP Scan Pro software for all-in-one devices when used with Snow Leopard. What to do? Use Apple's Image Capture (which is installed with the operating system and can be found inside the Applications folder) and then open the scan in the application you want.

Image Capture's scanner interface lets you control TWAIN-driven scanners connected to your Mac or shared over a network. You can set the resolution and file format, and manually adjust brightness, tint, color temperature, and saturation. You can open Image Capture to scan. Alternatively, you can open Preview and, under the File menu, select a menu item (new in Snow Leopard) called Import From Scanner. Clicking that command will show you any attached TWAIN scanners. Clicking on Include Network Devices will show you any TWAIN scanners shared on your network.

Scanning software can vary widely, not just from manufacturer to manufacturer, but even within one manufacturer's product line. Image Capture provides a clean, consistent interface regardless of the scanner you're using. It does require TWAIN, however, and not all scanners support that standard.



From left to right,
Epson's Perfection V30,
Canon's CanoScan LiDE200,
and HP's ScanJet G3110

Flatbed Scanners

Digitize the past for posterity

Is this the year you're finally going to drag that shoebox full of photos into the digital age? If so, a flatbed scanner may be just what you're looking for. Macworld Lab tested three flatbed scanners, and while each had its strong points, the Epson Perfection V30 stood out as the best of the bunch.

The Players

We reviewed three scanners: Canon's CanoScan LiDE200 (\$90), Epson's Perfection V30 (\$80), and HP's ScanJet G3110 (\$100). These three models connect to the Mac via USB 2.0; incorporate a flat, letter-size scanning platen; and boast an optical resolution of 4800 dpi. The high resolution allows you to crop a small section—say, a one-inch section from a scanned 8 by 10 photo—and create an 8 by 10 print at 250 dots per inch, high-enough resolution for a good-quality print from a color inkjet photo printer.

Of these three scanners, the CanoScan LiDE200 takes up the least amount of desk space. It's also the only scanner in this review that doesn't

require external power—it can operate on the power provided by the USB bus. Similar in size to a 15-inch MacBook Pro, the silver-and-black CanoScan LiDE200 features rounded edges and measures just under 10 inches wide, 14.4 inches deep and 1.6 inches thick. It looks tiny next to the ScanJet G3110 which is 2 inches wider, 3.5 inches longer, and more than an inch thicker. Some of the ScanJet G3110's height can be attributed to the transparency lamp, which is located in the lid, that the scanner model uses to scan slides and film. The flat, black Perfection V30 splits the difference, measuring about an inch less than the ScanJet in all dimensions.

The CanoScan LiDE200 goes a step further toward saving desk space by

including a vertical stand that, when snapped on, allows the scanner to stand on its side. Though you can scan with the CanoScan LiDE200 on its side, doing so makes placing a document inside the scanner much more difficult.

Each scanner has four buttons to help initiate scans directly from the unit itself, rather than importing the scans from applications on your Mac. All four offer Scan To File, Copy (scan to printer), Scan To Email, and Scan To PDF buttons. These functions are quite helpful, allowing you to use the scanner without even touching your Mac. But if you want to perform some fine-tuning, you'll need to use the included scanning software.

Software

HP, Canon, and Epson have been making scanners for quite some time, and so their scanning software is generally mature and the user interfaces have been refined over time. New operating systems can introduce bugs and other problems, but Epson's Scan and Canon's CanoScan applications look and feel pretty much the same in Snow Leopard as they did in Tiger (OS X 10.5). HP's scanner software has the least-consistent user interface of the bunch, changing frequently from a classic scanner-driver interface design to a menu-based one. I always feel like I need to relearn how to use HP's scanner software. That said, HP's software (like Canon's and Epson's) is easy enough for a first-time scanner owner to use, while offering more-detailed settings options for experienced operators.

Speed

To test each flatbed scanner for speed, we performed four tests. We recorded the amount of time it took to scan an 8 by 10 color photo at 600 dpi and 48 bits, a 4 by 6 color photo at 1200 dpi and 48 bits, and a grayscale resolution test chart at the highest bit depth. We connected the scanner via USB 2.0 to a 3GHz Mac Pro that had 2GB of RAM and that was running Mac OS X 10.6.2. We also timed each scanner's one-touch feature, which allows you to initiate a scan by pressing a button on the scanner itself.

Flatbed Scanners Compared

PRODUCT	CANON CANOSCAN LIDE200	EPSON PERFECTION V30	OUR PICK	HP SCANJET G3110
Rating	3 1/2	4 1/2	4 1/2	3 1/2
Price	\$90	\$80	\$100	
Contact	www.usa.canon.com	www.epson.com	www.hp.com	
Color quality	Good	Good	Very Good	
Detail	Good	Very Good	Very Good	
Type	flatbed	flatbed	flatbed	
Resolution	4800 dpi	4800 dpi	4800 dpi	
Bit depth	48-bit	48-bit	48-bit	
Max. doc. size	8.5 by 11.7	8.5 by 11.7	8.5 by 11	
Special features	bus powered	180-degree lid for books, photo albums, 3D objects	transparency unit	
Find code*	5635	5637	5640	

Scale=Poor, Fair, Good, Very Good, Superior. *In a browser's address field, typing a find code after macworld.com takes you to a product's review.

When it comes to speed, the CanoScan LiDE200 was the fastest scanner overall of this group. A 600-dpi, 48-bit scan of an 8-by-10-inch color photo took just 38 seconds. A 4-by-6-inch crop of that photo at 1200 dpi and 48-bit color depth took 1 minute and 17 seconds. The Perfection V30 came in close behind in those photo scans, with times of 40 seconds for the 8 by 10 photo and 1 minute and 19 seconds for the 4-by-6-inch photo scan. The ScanJet G3110 lagged behind the two other scanners in our tests, taking 1 minute and 50 seconds for the 8 by 10 scan, and 2 minutes and 32 seconds for the 4 by 6 scan.

In our grayscale scan test, the CanoScan LiDE200 was again the fastest, but the quick, 46-second scan time can be attributed to the lower maximum 8-bit depth for grayscale supported by the Canon scanner—that makes for a definite speed advantage over the 16-bit scans of the Perfection V30 (2 minutes and 12 seconds) and ScanJet G3110 (just over 5 minutes). When testing the Perfection V30 and the ScanJet G3110 at the same 8-bit settings, the performance gap narrowed but still favored the CanoScan LiDE200.

Quality

To judge the image quality produced by these scanners, we looked at a variety of images scanned from each unit, and printed out samples on an Epson Stylus

Photo 2200, a color inkjet printer designed to produce high-quality photographic output.

When comparing the image quality of each scanner's output of our 600-dpi color photo, we found that the CanoScan LiDE200 produced images that were a bit red and lacked depth. Dark areas showed little detail. The ScanJet G3110's color was the closest to the original samples and also maintained much of the detail found in both shadows and light areas. The Perfection V30's photo scan was also of very good quality, though not quite as detailed as the ScanJet G3110's. Our grayscale resolution test chart showed very little difference between these 4800-dpi scanners, though the CanoScan LiDE200 wasn't quite as clear on the tiniest details.

We also used the Scan To Printer feature of each scanner to print a copy of a *Macworld* magazine cover, printed on plain paper on our office color laser printer. In this test, we again found the ScanJet G3110 to be the best at replicating colors and detail, with the Perfection V30 a close second. The CanoScan LiDE200's scan, though still of good quality, had flat-looking blacks and lacked the detail found in the other two scans.

Transparency

The ScanJet G3110 is the only scanner in our review that has the capability to scan slides and films. Transparency scanning requires a light source in the lid, which the ScanJet G3110 provides. The scanner's transparency support is limited to one strip of 35mm film or up to four mounted 35mm slides, which could be inconvenient for large scanning projects.

When we tested the transparency scanning, the ScanJet G3110 offered impressive scan quality but at unimpressive speeds. Color quality can be an issue with a flatbed's transparency functionality, but happily, colors looked natural and pleasing. The scans maintained a good amount of detail, even in darker areas of the image.

Macworld's Buying Advice

The performance of these three inexpensive flatbed scanners was impressive. The space-saving CanoScan LiDE200 was speedy but had some color-accuracy problems, and its scans lacked the pop found in the output of the other two scanners. The ScanJet G3110 is a little more expensive, a little larger, and a lot slower than the other two scanners, but it has a built-in transparency adapter for scanning slides and film. Overall, we liked the Perfection V30; it combines fast scan speeds with very good image quality. In this roundup, the Perfection V30 gets the nod as our top pick.

Macworld Lab Test

Speedmark 6 Test Results

	CANON CANOSCAN LIDE200	EPSON PERFECTION V30	HP SCANJET G3110
8 by 10 color photo (600 dpi)	0:38	0:40	1:50
4 by 6 color photo (1200 dpi)	1:17	1:19	2:32
Grayscale chart (1200 dpi)	0:46	2:12	5:02
One-touch scan (300 dpi)	0:14	0:25	0:43

Times are in minutes:seconds. **Bold** indicates the fastest times. We connected the scanner via USB 2.0 to a 3GHz Mac Pro that had 2GB of RAM and that was running Mac OS X 10.6.2. We recorded the amount of time it took to do a 48-bit scan of an 8 by 10 color photo at 600 dpi, a 4 by 6 photo at 1200 dpi, and a grayscale resolution test chart at the highest bit depth.—MACWORLD LAB TESTING BY JAMES GALBRAITH AND LYNN LA

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From left to right, Visioneer's Strobe 500, Fujitsu's ScanSnap S1500M, Canon's ImageFormula DR-2010M, and Epson's Workforce Pro GT-S50

Sheetfed Scanners

Banish the file cabinet for good

The promise of the paperless office has been bandied about for years, but you've probably seen very little change in the volume of documents over the last few years. A sheetfed scanner can convert stacks of papers into digital files that can be easily stored, searched, and retrieved.

The Players

The sheetfed scanners we looked at are Canon's ImageFormula DR-2010M, Epson's Workforce Pro GT-S50, Fujitsu's ScanSnap S1500M, and Visioneer's Strobe 500. All are priced between \$400 and \$555.

Each of these scanners connects to your Mac via USB 2.0 and comes with an external power brick. The Visioneer Strobe 500 features a removable dock that, when removed, allows the Strobe to be a USB bus-powered portable scanner.

All four sheetfed scanners have an automatic document feeder, with capacities ranging from 20 to 75 sheets. Each supports automatic duplexing as well, which allows the scanner to digitize both sides of a page at a time. All but the Visioneer have an option that lets you scan a job containing a mix of single and double-sided documents and produce a digital document with no blank pages.

Software Controls

The Fujitsu's ScanSnap Manager software offers a pleasing interface with intuitive controls. There's no TWAIN driver, which would let you initiate a scan from Snow Leopard's built-in Image Capture and Preview applications, or from TWAIN-compliant apps like Acrobat Professional 8 (which is included with the ScanSnap). However, with ScanSnap Manager, you can send the scanned files to the above-mentioned programs and others. The ScanSnap Manager comes with presets for scanning to a printer, to a folder, or to e-mail. Unfortunately, two other presets, Scan To Word and Scan To Excel, did not work under Snow Leopard. Fujitsu is investigating this problem.

The Epson Scan software that comes with the Workforce Pro GT-S50 was trouble-free. The GT-S50 comes with a TWAIN driver, so scanning from

Acrobat, Preview, and Image Capture worked well. Like ScanSnap Manager, the Epson Scan software allows for scanning to print, to file, to iPhoto, and to e-mail.

Canon's CaptureOnTouch software is full featured, easy to use, and TWAIN compliant. Presets include scan to iPhoto, scan to a printer, scan to a folder, or scan to an app.

And lastly, Visioneer's Strobe 500 uses a lite version of ExactScan, a proprietary scanning driver from ExactCODE with limited features. Though not TWAIN-compliant, the software does allow you to scan to an app like Preview or Acrobat. The scanner also includes Presto PageManager, a document-management program; we were unable to scan directly from within PageManager, though we could scan within ExactScan and send the scan to PageManager. The lite version of ExactScan supports only PDF and compressed PDF; it lacks optical character recognition (OCR) functionality, and it doesn't scan to JPEG or TIFF files. With ExactScan, the Strobe 500 also can't skip blank pages, nor can it rotate images. The company says that an upgrade to the standard version of ExactScan will let you skip blank pages, rotate pages, and scan to JPEG, TIFF, and PNG file types. The software will soon be available for a fee through the Visioneer Website.

Speed

To test the speed of these document scanners, we ran a few scan tests: a one-page, 300-dpi color scan to a folder,

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Sheetfed Scanners Compared

PRODUCT	CANON IMAGEFORMULA DR-2010M	EPSON WORKFORCE PRO GT-S50	OUR PICK	FUJITSU SCANSNAP S1500M	VISIONEER STROBE 500
Rating	★★★★	★★★★	★★★★	★★★	★★★
Price	\$555	\$500	\$495	\$400	
Contact	www.usa.canon.com	www.epson.com		www.fujitsu.com	www.visioneer.com
Color quality	Good	Good	Good	Fair	
Detail	Good	Good	Good	Fair	
OCR accuracy	Very Good	Very Good	Good	Fair	
Type	document	document	document	document	
Resolution	600 dpi	600 dpi	600 dpi	600 dpi	
Bit depth	24-bit	24-bit	24-bit	24-bit	
Max. doc. size	8.5 x 39.4	8.5 x 36	8.5 x 34	8.5 x 14	
Special features	duplex	duplex	duplex	duplex, portable	
Find code*	5636	5638	5639	5641	

Scale = Poor, Fair, Good, Very Good, and Superior. *In a browser's address field, typing a find code after macworld.com takes you to a product's review.

using the supplied scanner driver; a multipage document with a mix of single- and double-sided documents, some with color and some in black and white, to a folder; and lastly, an OCR

scan to Acrobat, created from within Acrobat on both of the TWAIN scanners (Epson and Canon) and pushed to Acrobat on the two non-TWAIN scanners (Fujitsu and Visioneer).

The fastest scanner in every test was Canon's ImageFormula DR-2010M. Visioneer's Strobe 500 finished second overall. Fujitsu's ScanSnap S1500M took third place overall, and the slowest scanner in our tests overall was Epson's Workforce Pro GT-S50.

Quality

To test scan quality, we printed the one-page 300-dpi test file on our office color laser printer. The ImageFormula DR-2010M and Workforce Pro GT-S50 scans were quite similar—there was very little noise and few artifacts in the light areas of the image. Colors were good, if a bit undersaturated. The Strobe 500 and ScanSnap S1500M had some heavy artifacts in their scans, with the Strobe 500 displaying weird rectangular patches overlaying the scan—an interesting effect, but those shapes weren't in the original document we scanned. The ScanSnap S1500M also had some patches, but they weren't nearly as bad as those from the Strobe 500.

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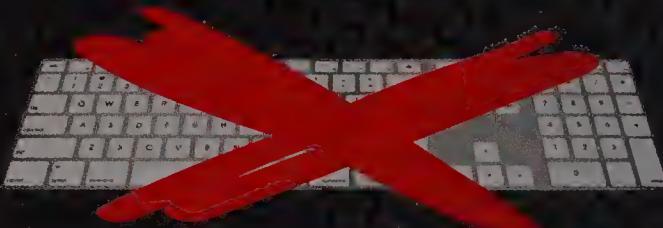
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OCR

All of the scanners come with optical character recognition capabilities built into their driver software, except for the Strobe 500, which requires an upgrade to the ExactScan Pro software. To see how well the scanned text could be recognized by a pro-level app, we imported text files into Adobe Acrobat and ran its OCR function. We then exported the file as a plain text document to see how well the words were recognized. The ImageFormula DR-2010M, Workforce Pro GT-S50, and ScanSnap S1500M performed admirably, requiring very little follow-up editing. The ImageFormula DR-2010M and Workforce Pro GT-S50 produced no spelling errors but needed a little formatting help. The ScanSnap S1500M had a couple of minor word errors and required a little formatting help.

The Strobe 500 produced a few strings of gibberish in the text and required the most formatting and editing.

Macworld's Buying Advice

Having choices in the Mac-compatible sheetfed scanner market is great, but clearly, much work remains to be done before support is on a par with sheetfed scanners running Windows. The Visioneer Strobe 500's clever docking station allows it to serve as both a desktop document scanner and a portable scanner. The Strobe's bundled software unfortunately leaves a lot to be desired. The Canon ImageFormula DR-2010M had easy-to-use software, and was also the fastest scanner we tested. The Fujitsu ScanSnap S1500M was speedy as well, has a polished user interface, and was easy to use; unfortunately, we ran into a couple of nonworking features. If you can live without them, or wait

until they are fixed, the ScanSnap S1500M is definitely worth a look. But with flawless (though dated-looking) software and decent scan speeds, the Epson Workforce Pro GT-S50 was our pick for the best overall sheetfed scanner.

James Galbraith is Macworld's lab director.

Macworld Lab Test

Speedmark 6 Test Results

	CANON IMAGE-FORMULA DR-2010M	EPSON WORKFORCE PRO GT-S50	FUJITSU SCAN-SNAP S1500M	VISION-EER STROBE 500
One-page, single-sided 300-dpi scan to file	0:07	0.15	0:17	0:14
Ten-page, double-sided 300-dpi scan to file	0:34	0.56	0.36	0:58
One-page, single-sided 300-dpi scan to Acrobat	0:10	0:29	0:18	0:17

Times are in minutes:seconds. **Bold** indicates the fastest times. We connected the scanner via USB 2.0 to a 3GHz Mac Pro that had 2GB of RAM and that was running Mac OS X 10.6.2. We recorded the amount of time it took to scan a single-sided document with mixed text and graphical elements at 300 dpi with automatic color settings and 24 bits. Then we scanned that same document to Adobe Acrobat 8. We then scanned a 7-sheet, 10-image job at 300 dpi, with automatic color detection and blank-page skipping turned on.—MACWORLD LAB TESTING BY JAMES GALBRAITH AND LYNN LA

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HOW TO GET ONLINE FROM ANYWHERE

Can't find a hotspot? Here's how to make an Internet connection without one.

By Glenn Fleishman

We're all accustomed to having Internet access in so many places—at home, at the office, at airports, at coffee shops—that it can be frustrating to travel and find yourself with low-speed service or none at all.

Fortunately, there are a number of good ways to make sure you—and anyone traveling with you—can access the Internet through your laptop's built-in wireless networking, even when you're nowhere near a Wi-Fi hotspot. Note: Two of these options—cell phone tethering and using a 3G adapter—connect a laptop to the Internet and then share that connection from the laptop.

To set up that sharing, first establish the Internet connection to the laptop. Then open the Sharing system preference. From the Share Your Connection From drop-down menu, choose the active Internet connection. In the To Computers Using list, select the AirPort box.

If you want to password-protect the connection you're sharing (an advisable thing to do), click AirPort Options and set it there. Finally, select the box next to Internet Sharing to turn sharing on. You may need to repeat these steps each time you enable the connection.

Use AirPort Express in a Hotel Room

Apple's \$99 AirPort Express (; macworld.com/3509) is a portable powerhouse of a base station. In hotel rooms that have only wired Ethernet for Internet access, plugging an Express into that wired connection not only lets you work on your laptop from anywhere in the room, it also lets you share that



connection with other devices that have Wi-Fi but no Ethernet (such as an iPhone) and with anyone else you choose within range. Apple says that the AirPort Express can support up to ten simultaneous Wi-Fi connections.

You may first need to connect your laptop via Ethernet to register or activate the room's connection; then plug in the AirPort Express. Make sure to activate WPA2 Personal encryption so that your shared connection isn't accessible to just anyone. (See "How to Secure Your Home Network," at macworld.com/5682, for details.)

Turn Your Cell Phone into a Modem

Tethering services for cell phones let you turn the mobile device into a modem. The phone connects to the Internet over a 2.5G or 3G network; you then connect

your laptop to the phone via Bluetooth or USB—voilà, you're online.

Once you've connected your laptop, you can use it as a base station to share that connection via Wi-Fi. Unfortunately, the iPhone doesn't yet offer tethering in the United States; AT&T promises that it's coming. If you're using a different brand of phone, check with your cell phone provider. Some phones may let you tether, but the provider might slap expensive transfer fees on top of whatever data plan you already pay for.

Make Your Phone a Hotspot

A small but growing number of mobile phones support both 3G and Wi-Fi. With the right software, you can turn such phones into hotspots. Joiku's JoikuSpot Light (free) and JoikuSpot Premium (€7; www.joiku.com) work on the Symbian S60 smartphone platform. The Light version supports only the HTTP protocol, so all you can do with the program is surf the Web; the Premium version supports all Internet protocols. WalkingHotSpot (\$25; www.walkinghotspot.com) works with Symbian S60 and with many Windows Mobile phones. As with tethering, check with your carrier about extra data fees.

Add a 3G Adapter to Your Laptop

AT&T, Sprint Nextel, T-Mobile, and Verizon Wireless all offer Mac OS X drivers for a variety of 3G modems, which connect your laptop to the Internet over 3G data networks; many of these modems connect via the USB port, so they'll work with any Mac portable. Unfortunately, this kind of access comes



Novatel MiFi 2200

at a high price: Service plans typically cost \$60 a month, with a two-year commitment and a usage limit of 5GB per month (combined uploads and downloads). (Cheaper plans, if a carrier offers them, include ludicrously small amounts of monthly use.)

A USB modem may be free with your contract, but it may cost as much as \$150 to \$250 without one. (If you purchase your modem up front, T-Mobile lets you pay its monthly data rate without a contract.) Fortunately, such modems can be swapped among nearly any Mac or Windows system. You can typically share the resulting 3G service via Wi-Fi—though not always (some drivers might prevent it).

Virgin Mobile (now owned by Sprint Nextel) has a pay-by-the-byte 3G plan. The Broadband2Go USB modem costs \$99 (www.macworld.com/5683); you then buy blocks of usage (in megabytes or gigabytes) as you need them. Pricing starts at \$10 for 100MB (must be used within 10 days) up to \$60 for 1GB (expires in 30 days). For people who travel and need access less frequently, this plan makes great sense. As with other 3G adapters, you can share your Virgin Mobile access via Wi-Fi, too.

Try a 3G Wi-Fi Router

The Novatel MiFi 2200 (; [macworld.com/5220](http://www.macworld.com/5220)) isn't the first hardware to combine 3G data access with a wireless router in one box. But such gateways—the Kyocera KR2 (www.macworld.com/5684), for example—have typically been the size of regular desktop routers. The

MiFi, by contrast, can fit in your pocket. It allows up to five simultaneous connections and has an internal rechargeable battery, so it can continue to provide access even when you're away from a power outlet.

The MiFi is sold by Verizon Wireless and Sprint Nextel. Both firms charge \$100 for it (after rebates, with a contract). Verizon offers \$40 data plans (with a two-year contract) for 250MB per month or \$60 data plans for 5GB per month. Sprint Nextel offers only a \$60 plan (for 5GB per month, with a two-year contract). You can purchase the MiFi separately for about \$250 and use it with Verizon's network at a \$15-per-day rate for on-demand usage.

Go Online, Not Broke

The biggest danger with all the cellular options is overage charges. You're better off using these options when no Wi-Fi service is within reach. You may find that happens less often now, since 12,000 U.S. McDonald's franchises recently switched to free Wi-Fi service (www.mcdonalds.com/wireless.html) in January. When you need to go online, always check to see if you've got a Big Mac alternative nearby.

Glenn Fleishman is the editor of Wi-Fi Networking News and the author of *Take Control of Your 802.11n AirPort Network* (www.takecontrolbooks.com).



AirPort Express

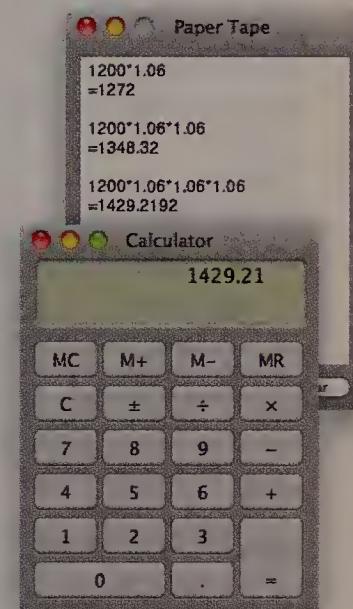
Two Quick Calculator Tricks

By Sharon Zardetto

Apple's unassuming Calculator can do more than you might realize. Here are two tricks. (If you want more after reading these, see macworld.com/5696.)

Copy and Paste Numbers

Need to include a quick calculation in an e-mail message? Because you can't select anything in the Calculator display, it's easy to forget that you can still use Copy and Paste commands with it. The Copy command (⌘-C , or **Edit** ▶ **Copy**) always grabs the currently displayed number and places it on the Clipboard. If you've copied a number from someplace else, just use Paste (⌘-V , or **Edit** ▶ **Paste**) when the Calculator is open to insert the number in the Calculator field.



Use the Paper Tape

The Show Paper Tape command (**Window** ▶ **Show Paper Tape**) opens a small window that shows each of your calculations as soon as you press Return or click the equal sign (=) button. This lets you check for incorrectly entered numbers. If you decide that you want to see your history only after the fact, no problem: Any time you open the paper tape, you'll see everything you've done since you opened the Calculator for the current number-crunching session. If you need a copy of the paper tape, choose either **File** ▶ **Save Tape As** or **File** ▶ **Print Tape**. You can also select and copy any part of the paper tape's information.

WHAT IS GOOGLE VOICE?

By Chris Pepper

Ever since I got my Google Voice account, I've had to explain to friends and colleagues what Google's free phone service is and (more importantly) what it isn't. If you too have heard about Google Voice but still aren't completely clear about how it works and why you should care, here are some quick explanations.

How It Works To sign up for Google Voice you need an invitation. Go to the Google Voice invitation request page (macworld.com/5685) and fill out the form. Once you sign up and have service, you can invite others.

You can associate your Google Voice number with your other phone numbers—work, home, mobile, whatever. That means you can still make calls from those handsets through your regular phone service; their individual numbers will show up on the receiver's caller ID screen. But you can also choose to have your Google number show up instead.

What It Is In addition to having one number that can reach all of your physical handsets, Google Voice offers some intelligent phone features that your existing handsets and services might not. For starters, you can get call forwarding, by setting up rules for how you want your calls routed. You might, for example, want calls received before 5 p.m. sent to your office phone, and calls after that to go to your cell phone. You also get customizable ringing: Calls from some callers might ring only at home, while others go straight to voicemail.

Google Voice gives you a Web interface to your phones and services. You can manage your voice messages online, filing and archiving them much the way you do in Gmail (mail.google.com). You can customize greetings by caller and by group. You can also dial from any of your associated phones through a Web interface or a helper program.

What It Isn't Google Voice is not the be-all and end-all of telephony services. It isn't a Voice-over-IP (VoIP) service like



Skype (www.skype.com) or Vonage (www.vonage.com). You still need a standard phone connection (cellular or landline) to and from Google Voice.

Nor is it fully integrated (yet) with the iPhone. As I write this, Apple does not allow Google Voice iPhone apps. There is, however, a very good iPhone-optimized version of the Google Voice Web application. Google's native Voice applications for Android and BlackBerry phones are very capable.

The Bottom Line In many ways, Google Voice turns your "dumb" phones into smartphones. You can understand why cell phone vendors and carriers might not be too thrilled about the service: It allows Google to insinuate itself between you and your carrier, and it provides free replacements for many of those vendors' premium services.

QuickBooks 2010

By Jeffery Battersby

REVIEW

QuickBooks 2010 offers several new features that are sure to make it a hit with both new and upgrading users. The setup process has been greatly streamlined. Plus, it's finally possible to accept credit card payments from within the program. This integrated for-fee service feature (\$20 per month, \$60 setup) allows you to process and securely store client credit card information. You can now send e-mail invoices to your customers and provide more-personalized messages when you send out bulk e-mail.

A new customizable reporting tool called Snapshot gives you an overview of your company's financial health. QuickBooks 2010 adds a free application called My Time that lets you track time and then push the data to specific clients and jobs in QuickBooks. Unfortunately, the program still lacks some seemingly basic features, such as multi-user capabilities, online bill paying, and cross-platform data files. Without these, QuickBooks is a good—rather than a great—business accounting application.

 | **PRICE:** \$200 | **COMPANY:** Intuit, www.quickbooks.intuit.com

Malcolm Fontier Diplomat

The slim and stylish Diplomat, available for 13-, 15-, and 17-inch MacBooks (\$195, \$245, and \$295, respectively; www.malcolmfontier.com), gives you the look and feel of leather with no actual animal products: The bag is made of stain-resistant, polyurethane-coated canvas, with a natural linen liner. While the Diplomat won't hold a lot of big gear, it offers plenty of organizational touches, along with the requisite padded laptop sleeve and sturdy, brushed-nickel hardware. The company donates 1 percent of its annual proceeds to environmental organizations.—DAN FRAKES



WHEN TO PARTITION A DISK

By Joe Kissell

Every new Mac comes with one startup drive named Macintosh HD. This arrangement is perfectly fine for most of us, but it's not your only option. If the need arises, you can split that disk up. You can reorganize any internal or external disk into one or more volumes called *partitions*.

Each partition appears on your Desktop as an independent disk. You can use Disk Utility (found in /Applications/Utilities) to repartition a drive, although doing so normally requires erasing the entire drive. You can also choose a third-party utility, such as Prossoft Engineering's \$99 Drive Genius 2 (www.prosofteng.com) or Coriolis Systems' \$45 iPartition (www.coriolis-systems.com), that can change a drive's partitioning without erasing the drive's content.

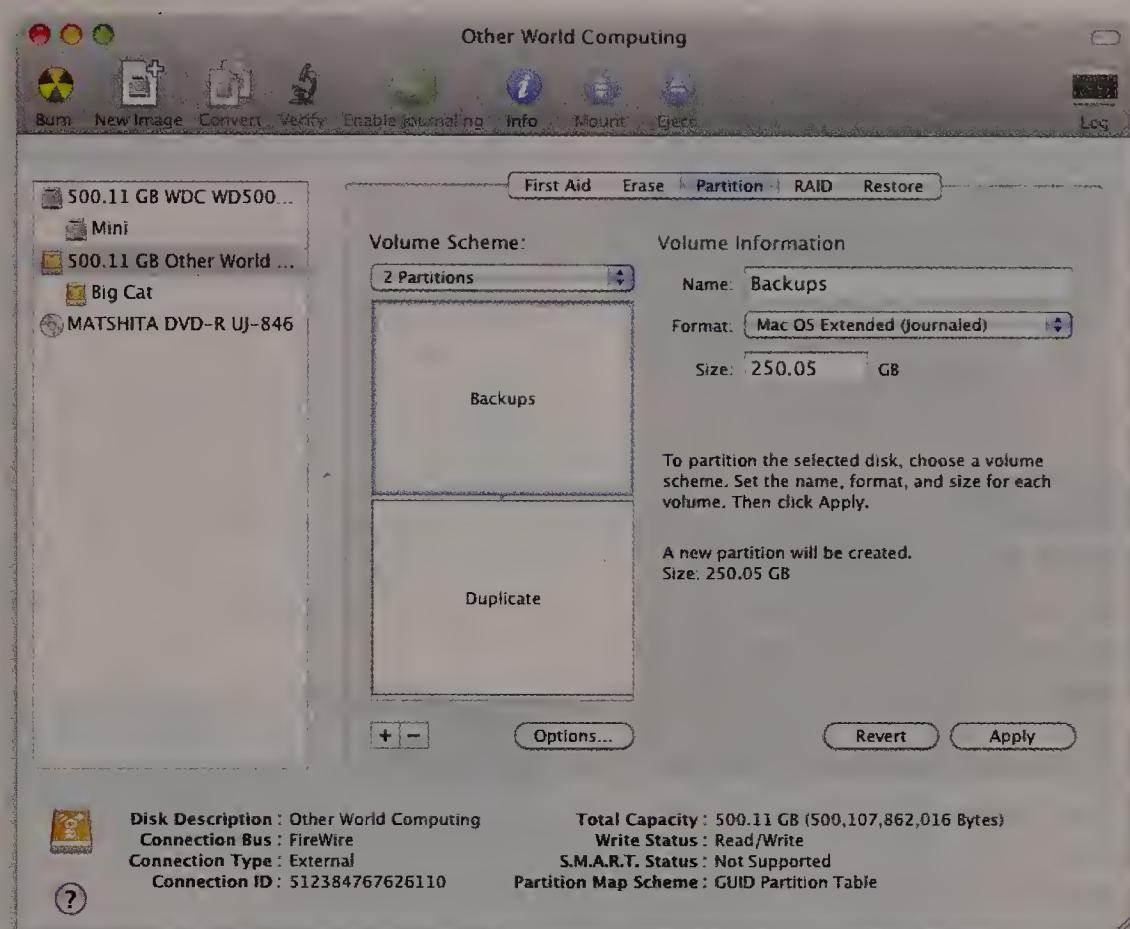
I know some people who have partitioned their Macs' hard drives for decades, but can't really give a good reason for doing it. Partitioning can waste space and even decrease your hard drive's performance. So why would you ever bother? Here are some good reasons:

1. To Switch between OS X Versions

If your Mac is capable of running multiple versions of OS X (for example, you have an early Intel-based iMac that can run Tiger, Leopard, or Snow Leopard), you can partition your drive so that you can use more than one operating system version. Divide your disk into one partition for each version of OS X, and then install the OS versions separately. When you need to run a different version of the OS—say, for testing, or to use older software—open the Startup Disk system preference, select the partition you want, and click Restart.

2. To Use Boot Camp

If you use Boot Camp Assistant (built into OS X 10.5 [Leopard] and later) to run Windows on your Mac, it creates a special partition just for your Windows installation. Unfortunately, Boot Camp



Disk Utility Using OS X's Disk Utility, you can divide one physical disk into multiple partitions.

Assistant won't work if your disk is already partitioned, so if you intend to use Boot Camp, you'll have to stick to just two partitions (one each for Windows and OS X).

3. To Repair Disk Problems

If your startup volume develops disk errors, you may need to run a repair program (such as Disk Utility) from another volume in order to fix them. This other volume could be an external hard drive or a bootable DVD. But another option is to keep a small partition on your main disk that includes a bootable copy of OS X and a repair utility or two. When trouble strikes, you can boot up from this volume to fix problems.

4. To Share Your iPhoto Library

If you want to share a single iPhoto library between two or more user accounts on the same Mac, one way to do so, per Apple's advice (macworld.com/5686), is to move the library to a

volume where ownership is ignored. That can't be your main startup volume, but it could be an external disk—or another partition of your internal disk.

5. To Manage Backups Efficiently

I advise keeping two kinds of backups. The first type is a bootable duplicate of your entire disk, using a program such as Bombich Software's Carbon Copy Cloner (payment requested; www.bombich.com) or Shirt Pocket's \$28 SuperDuper (www.shirt-pocket.com). The second type is a versioned backup (which stores copies of your files as they appeared at many points in time), using Apple's built-in Time Machine or another backup utility.

You don't need to keep two different hard drives around for your two types of backups. Instead, use partitions. For example, if you have a 1TB internal disk, you could buy a single 2TB external drive, divide it into two 1TB partitions, and then put your bootable duplicate on one while using the other for versioned backups.

Reviews

WHAT WE'RE REVIEWING
ONLINE THIS MONTH



HARDWARE

BenQ Joybee GP1 △

At 1.4 pounds (3 pounds traveling weight), BenQ's compact Joybee GP1 is one of the smallest LED projectors we've seen. It offers the basic functions you need for presentations, but its brightness rating of only 100 lumens makes it most appropriate for small groups in dimly lit rooms. The projector can play slides, photos, and videos without being attached to a computer: You can supply the content on a USB flash drive or another mobile storage device via an integrated USB reader slot, and play the content through the projector's built-in media player. The Joybee GP1 did a decent job of playing media from a USB flash drive. It was able to display PowerPoint slides only as still images, however, with no animation or special effects (such as moving text across the screen). For budget-minded business travelers with limited needs, the Joybee GP1 is good enough to serve as a slide-show display unit for one-on-one presentations, small sales meetings, and other modest gatherings (macworld.com/5687).

3.5; \$499; BenQ, www.benq.us

Dell ST2310 ▷

Dell's ST2310 is a solid display that performs well. It's not splashy or feature-rich, but it does deliver nice image quality. In our tests, the 23-inch ST2310 showed sharp text and good



color accuracy. In a portrait, skin tones looked realistic and nuanced. The ST2310 also did well in our motion tests, showing no visible fluttering or jarring of the image. The display's controls are easy to access via buttons that sit on the side of the right bezel. The ST2310 comes with DVI, HDMI, and VGA connections on the back, as well as audio-in and audio-out ports. The screen's 1920-by-1080-pixel resolution is suitable for viewing high-definition video and games. Although the display tilts easily, it does not swivel (macworld.com/5688).

3.5; \$230; Dell, www.dell.com



InFocus IN1102 △

The versatile, 2.75-pound InFocus IN1102 is a superior lamp-based projector that can deliver bright, colorful images both in large conference rooms and in cozy living rooms. With its substantial light output of 2200 lumens, the IN1102 can deliver a viewable screen in rooms with considerable ambient light, without losing image quality. Its native 1280 by 800 (WXGA) resolution and wide aspect ratio make it a good match for displaying images from a MacBook, as well as for showing widescreen DVDs and HDTV. However, it does not support HDMI, and the projector's 1.0-watt mono speaker is barely audible. The IN1102 comes with an extra-long (nearly 10-foot) power cord, making the projector easier to position for presentations

or movie watching (macworld.com/5689).

3.5; \$1149; InFocus, www.infocus.com

Microsoft Wireless Mobile Mouse 6000

If you prefer to tote a mouse around with you rather than use your laptop's



trackpad, a stylish offering from Microsoft may be a good choice. Measuring 2.4 by 3.8 by 1.7 inches—slightly wider and taller than Microsoft's previous mobile mouse—the Mobile Mouse 6000 proved comfortable for extended use. It uses Microsoft's BlueTrack Technology, which, according to the company, allows the mouse to be used on almost any surface. The buttons feel solid when you click them, and require little effort to press. Use Microsoft's downloadable IntelliPoint 7 software to program the buttons. One issue that may be a deal breaker for some users is that the 6000 uses a wireless 2.4GHz RF signal, not Bluetooth. There is no Bluetooth version (macworld.com/5690).

3.5; \$50; Microsoft, www.microsoft.com

SOFTWARE

FreshBooks

Good business accounting packages do a few things well: track income and expenses; manage estimates, invoices, and customer payments; and provide clear, concise year-end financial information. Really great accounting applications also let you create and manage inventory and track the cost of goods sold. The Web-based, 256-bit encrypted FreshBooks excels in almost all these areas. Its major weak spots are reports (it offers only

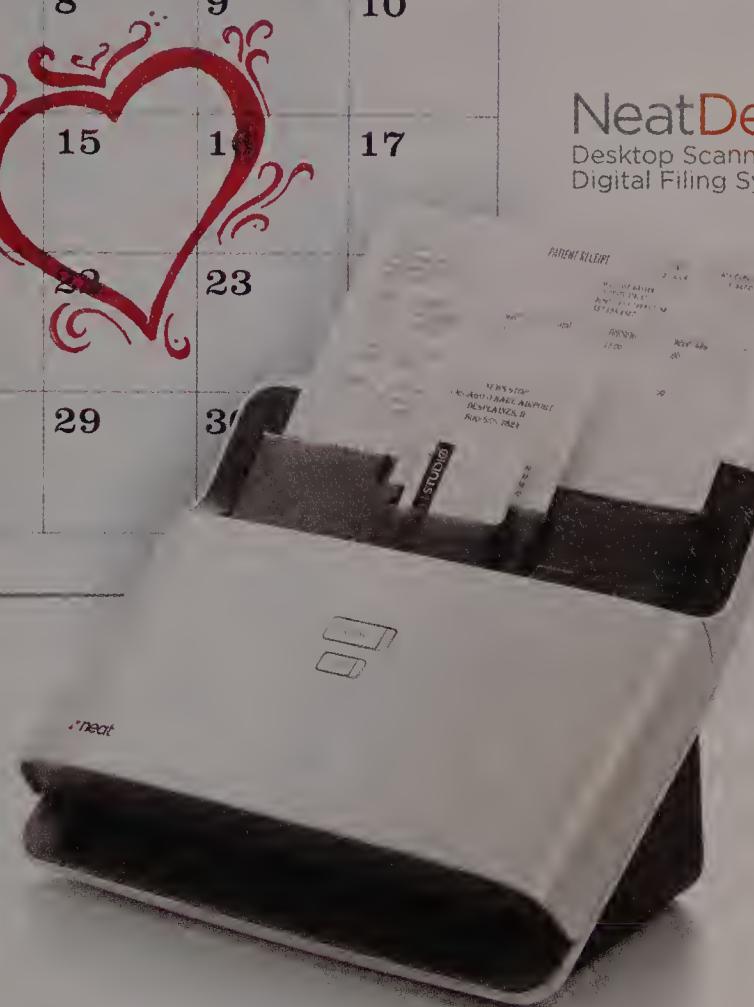
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For expanded reviews, type the blue URL at the end of each summary into your browser's address bar.



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18	19	20	21	22	23	
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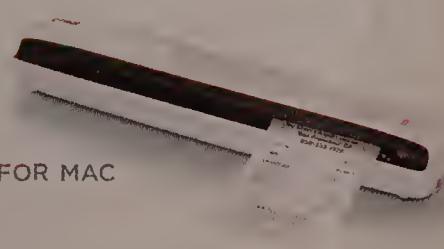
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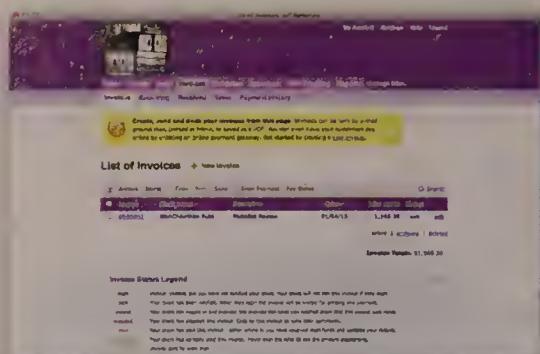
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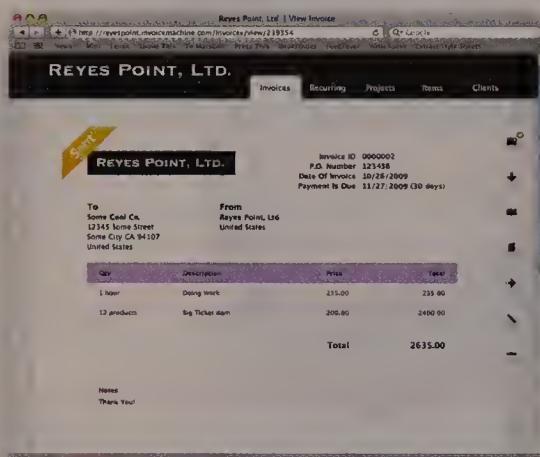
neat





19) and inventory management. FreshBooks' basic inventory tracking will prove useful only for businesses whose inventory isn't a major source of income. If these limitations don't give you pause, this capable Web-based accounting package is worth a look (macworld.com/5691).

1/2; pricing ranges from free to \$149 per month; FreshBooks, www.freshbooks.com



The Invoice Machine △

The Invoice Machine is a time tracking, invoicing, and billing program that offers a basic set of tools for managing your business's service and product transactions. The Invoice Machine includes integration with the Basecamp project-management software, support for PayPal payments and recurring invoices, and a project timer that's easy to access using your iPhone or iPod touch. What the Invoice Machine doesn't include is the breadth of features you'll find in many other accounting applications. For example, you can't send proposals or manage inventory. There are also no reporting features—not even basic ones, such as a balance sheet. Easy to manage and use, this Web application may suit small businesses that desire Basecamp integration. But most will find that for just a few more bucks a month, they can get far more powerful accounting features from other applications (macworld.com/5692).

1/2; pricing ranges from free to \$48 per month; Bombia Design, www.invoicemachine.com

Top Products

YOUR GUIDE TO THE BEST HARDWARE WE'VE TESTED



HARD DRIVES Desktop

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
Professional Quad-Interface (pictured); www.verbatim.com		\$194 (1TB)	quad interface	4963
Rocpro 850 www.rockstor.com		\$155 (500GB)	quad interface	5397
CalDigit VR Mini www.caldigit.com		\$664	quad interface	5396



HARD DRIVES Portable

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
Mercury On-the-Go (pictured) www.macsales.com		\$102 (320GB)	quad interface	4258
Starck Mobile Hard Drive www.lacie.com		\$87 (320GB)	USB-only	5608
G-RAID mini2SSD www.g-technology.com		\$2642	quad interface, SSD	4766



MONITORS Widescreen

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
324 LCD (pictured) www.lacie.com		\$816	24-inch display	3896
LP3065 www.hp.com		\$1167	30-inch display	2509
LN40B650 www.samsung.com		\$957	40-inch display	5607



PRINTERS Laser

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
C544DN (pictured) www.lexmark.com		\$427	LED, color	4356
C6150dn www.okidata.com		\$800	LED, color	3899
HL-4070CDW www.brother-usa.com		\$351	PostScript-compatible	3385



PRINTERS Multifunction

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
Color LaserJet CM1312nfi (pictured); www.hp.com		\$434	laser	5183
Artisan 800 www.epson.com		\$140	laser	5010
LaserJet M1319f www.hp.com		\$207	inkjet, monochrome	5480

^A All prices are the best current prices taken from a PriceGrabber survey of retailers at press time. ^B In a browser's address field, typing a find code after macworld.com/takes you to a product's review or overview.

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*Bose payment plan available on orders of \$299-\$1500 paid by major credit card. Separate financing offers may be available for select products. See website for details. Down payment is 1/12 the product price plus applicable tax and shipping charges, charged when your order is shipped. Then, your credit card will be billed for 11 equal monthly installments beginning approximately one month from the date your order is shipped, with 0% APR and no interest charges from Bose. Credit card rules and interest may apply. U.S. residents only. Limit one active financing program per customer. ©2010 Bose Corporation. Patent rights issued and/or pending. The distinctive design of the headphone oval ring is a trademark of Bose Corporation. Financing and free shipping offers not to be combined with other offers or applied to previous purchases, and subject to change without notice. Risk free refers to 30-day trial only and does not include return shipping. Delivery is subject to product availability. C_007915

Business Center

NEWS AND ANALYSIS ABOUT
MACS IN THE WORKPLACE



Microsoft Releases Office Updates

Office 2004 for Mac gets a security boost with the 11.5.6 update, which corrects a vulnerability that could allow a remote baddie to overwrite your computer's memory. The 2008 version sees the same security fix in its 12.2.3 update, along with a host of other minor upgrades, such as resolving text spacing issues in documents that originated on Windows systems.

The update should also reduce some frustrations. Previously, Word was prone to closing unexpectedly when a user accepted tracked changes. Stability is similarly improved in Excel and PowerPoint, which have both suffered unpredictable crashes in some circumstances. Entourage, Microsoft's e-mail client for the Mac, also gets a better junk mail filter.

Office 2004 and its most recent update require OS X 10.2.8 or later. The previous Office update (11.5.5) must be installed, too. Office 2008 and its current update require OS X 10.4.9 or later. Again, you must install a previous update (12.1.0) first. (One option is to select Help ▶ Check For Updates in any Office program.)

Last August, Microsoft announced that it would release a new Office version for Mac users sometime in late 2010, complete with Outlook for Mac (a replacement for Entourage).

—RAMU NAGAPPAN

Skype Offers Businesses More Options

Any business that has a corporate Voice-over-IP (VoIP) system can now use Skype's SIP trunking service as a way to cut the cost of corporate phone bills. The Skype for SIP program (macworld.com/5694) is now in general beta testing.

Using the service, customers can enable click-to-call buttons on Web sites; receive inbound calls from Skype endpoints at no extra cost; set up direct-inward-dialing Skype phone numbers that reach desktops through IP PBXs; and make outbound calls through IP PBXs via supplemental Skype Out service. Customers must have a broadband Internet connection and configure the SIP settings on their IP PBXs so that they can talk to SIP gear in Skype's network.

Skype has certified Cisco, Shortel, and SIPfoundry IP PBXs. The cost of the service is \$7 per month per concurrent call channel, which allows for one call. If customers sign up for Skype Out at 2.1 cents per minute, that call can be outbound.

To sign up, register a Skype Business Control Panel (macworld.com/5695)—a Web-based, Mac-accessible tool—and follow the instructions.—**TIM GREENE**

The screenshot shows the Skype Business Control Panel interface. On the left, under 'Star Spotter Hotels', there are links for 'People', 'Company', 'Purchase Skype credit', 'Add members', 'Redeem voucher', 'Manage online numbers', 'Grow people', 'Orders', 'Allocation report', and 'Payment preferences'. On the right, under 'Skype for SIP Beta', it says 'A Skype for SIP profile supports from 1 to 300 concurrent calling channels. A SIP profile can have multiple concurrent calling channels running - each channel allows one inbound or one outbound call at any time'. It also says 'The quantity of concurrent calling channels you require will depend on various conditions, such as the size of your business. The following examples should give an idea of a recommended amount of concurrent calling channels you require.' Below this, there is a table with 'Company size' and 'Recommended number of channels' for 10 employees (4 channels), 50 employees (17 channels), and 150 employees (34 channels). At the bottom, there is a text input field 'Enter the number of channels you require:' with a value of '4' and an 'OK' button. The total price per channel per month is listed as '\$ 8.95 per channel per month.'

A Quarter of Workers Say They'd Steal Data

A quarter of office workers would steal sensitive company data if they thought it would help a friend or family member secure a job, says Cyber-Ark Software.

Research by the data security firm in New York and London also revealed that four out of ten office workers claimed they had already taken sensitive company data. USB flash memory drives were the media of choice for transporting data from the office.

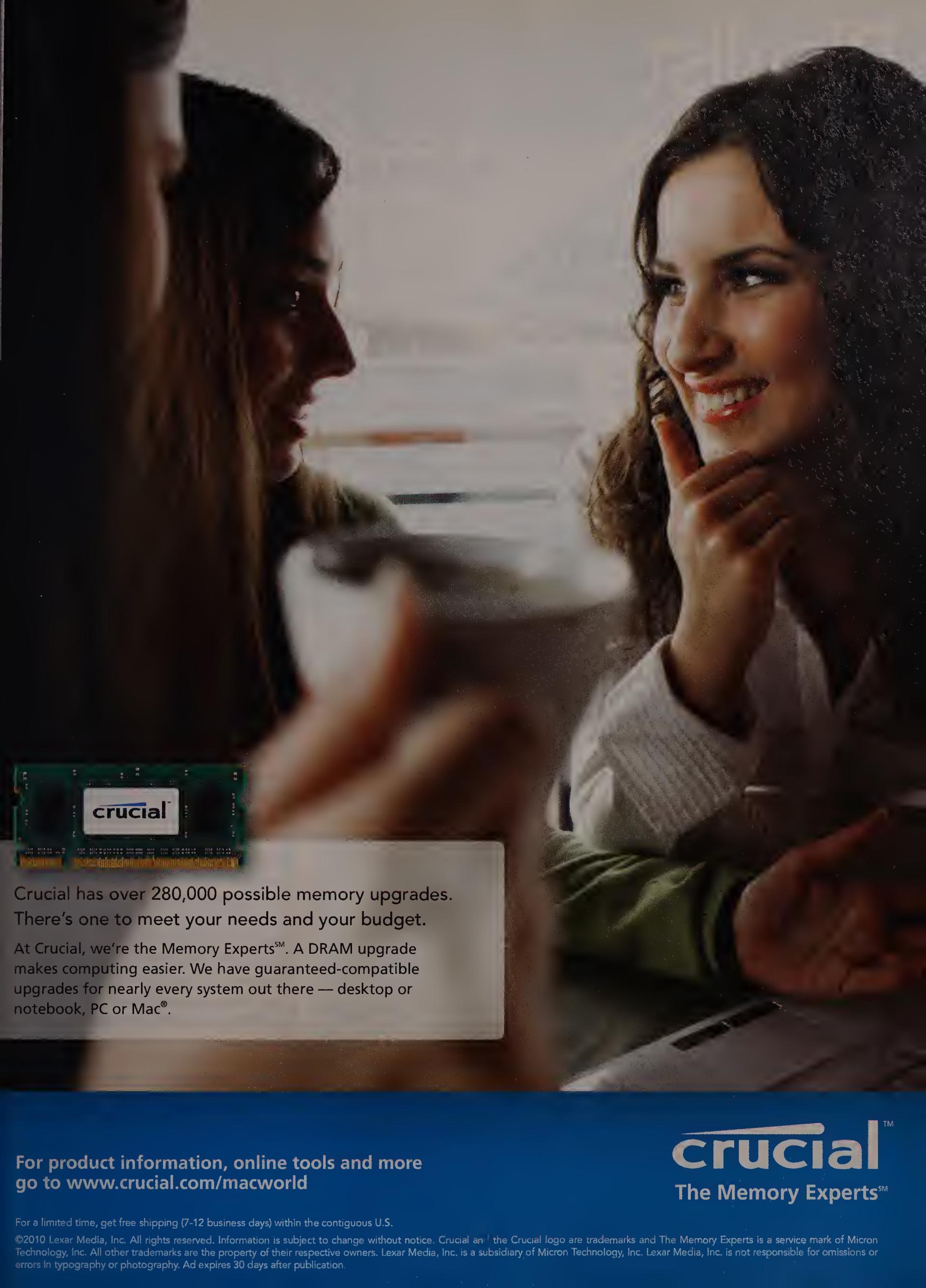
Cyber-Ark also said that 26 percent of those surveyed would be willing to steal company data if they were fired, while 24 percent would take data if they heard rumors that their job was at risk. Furthermore, of those who said they would steal data, 28 percent said they would use it to negotiate their new position.

Nearly a quarter said customer contact details would be the data they would steal. Eleven percent said they would take passwords.

"While there is no excuse for employees who are willing to compromise their ethics to save their job, much of the responsibility for protecting sensitive proprietary data falls on the employer," said Adam Bosnian, vice president of products and strategy for Cyber-Ark Software.

"Organizations must be willing to make improvements to how they monitor and control access to databases, networks and systems—even by those privileged users who have legitimate rights."—**CARRIE-ANN SKINNER**





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HANDS ON WITH HANDBRAKE 0.9.4

By Jonathan Seff

Thanks to copy protection and the Digital Millennium Copyright Act, you can't stick a DVD into your Mac and quickly convert it to an iPod- and iPhone-friendly format.

But there are ways around that. One of the simplest ways is to use HandBrake (handbrake.fr), the free open-source video-conversion program. HandBrake's developers recently upgraded the software from version 0.9.3 to 0.9.4. While that might not sound significant, it's actually a major upgrade.

64-Bit Support

One of the biggest changes is that HandBrake is now available in a 64-bit version (for use with OS X 10.5 or 10.6 on Macs with Core 2 Duo or better Intel processors). Unlike many 64-bit Mac programs, which contain both a 32-bit and a 64-bit version within a single app, HandBrake is now available in two separate 32-bit and 64-bit versions.

However, there's one extra step involved in getting the 64-bit version of HandBrake to work. As of 0.9.3, HandBrake's developers stopped including the code necessary to decrypt commercial DVDs. Instead, the program calls on the libdvdcss decoding library that's bundled with the free VLC media player (www.videolan.org/vlc). As long as you have VLC installed, HandBrake will use its copy of libdvdcss automatically.

At press time, though, the current version of VLC (1.0.3) was not available in 64-bit format. There are a few ways to bypass that problem. One is to download a 64-bit version of VLC 1.0.2, the previous version. Another is to grab one of the nightly builds of VLC 1.0.3



Subtitle Tracks Soft subtitling lets you include subtitles without hard coding them into your file.

(nightlies.videolan.org), which include 64-bit support. (Keep in mind, however, that those builds aren't always stable.)

HandBrake's Website says that the 64-bit version of 0.9.4 encodes video about 10 percent faster than the 32-bit version. Using a 3.06GHz iMac, with 4GB of RAM and running OS X 10.6.2, I used the 32- and 64-bit versions of HandBrake 0.9.4 and the corresponding versions of VLC (the 32-bit 1.0.3 and a nightly build of 64-bit VLC 1.0.3) to encode two chapters of an 11-minute movie (with the Apple TV preset). The 32-bit versions took 8 minutes and 38 seconds, while the 64-bit versions took 7 minutes and 18 seconds—a difference of just over 15 percent.

Soft Subtitles

HandBrake has long been able to include subtitle tracks from DVDs. But they've always been burned into the movie, with no way to turn them off. In movies ripped with 0.9.4, you can.

This feature works with the closed-captioned data on DVDs, and will also work with .srt-format subtitles that

you can find on the Internet and then import from your desktop. (You can still use the subtitle tracks on discs, instead, but they will be displayed in the old burned-in format.)

Better H.264 Encoding

HandBrake uses the x264 video-encoding engine for H.264 video. The latest version of x264 in HandBrake is supposedly faster than the one before, while also creating better-quality files at smaller sizes (though H.264 is still processor-intensive). However, when I ripped part of a TV episode from a DVD (using the iPhone preset), even though the 64-bit HandBrake 0.9.4 was much faster than the 32-bit 0.9.3, the 0.9.4 version's data rate was actually higher (and the file's size larger) with the same preset. (This may be related to HandBrake's new emphasis on quality-based encoding rather than on specific target file sizes and bit rates.)

As a special bonus for Mac users, HandBrake now uses OS X's Core Audio subsystem to encode AAC audio tracks. The developers say this produces much higher audio quality than the open-

source library that was used in the past (and still is on other platforms).

Live Preview

Prior to 0.9.4, the best way to find the right settings for a movie was to encode a chapter with your chosen settings and see how it looked.

HandBrake has simplified that by providing a Preview Window button at the top of the HandBrake window. Click it and you'll see a static preview of different frames from throughout the movie. But you can also pick a frame, select a duration (from five to 60 seconds), and then click Live Preview to get HandBrake to encode just that portion of the movie with your chosen settings (including frame size and any filters you've enabled) and then play it. Don't like what you see? Pick new settings and try again.

In addition to the Preview Window button, there's also a Picture Settings button. Clicking Picture Settings brings up a translucent, HUD-like floating window with Size and Filters tabs. To get to these settings in the past, you had to click the Picture Settings button near the bottom, which opened a new window that prevented you from accessing the rest of the interface.

Improved Support

A new DVD-reading library should allow you to not only select different angles on a DVD, but also read some DVDs that HandBrake had trouble with in the past. In addition, with the previous version of the software, HandBrake added the ability to encode non-DVD files as well; the latest version improves transport stream support and fixes several decoding bugs.

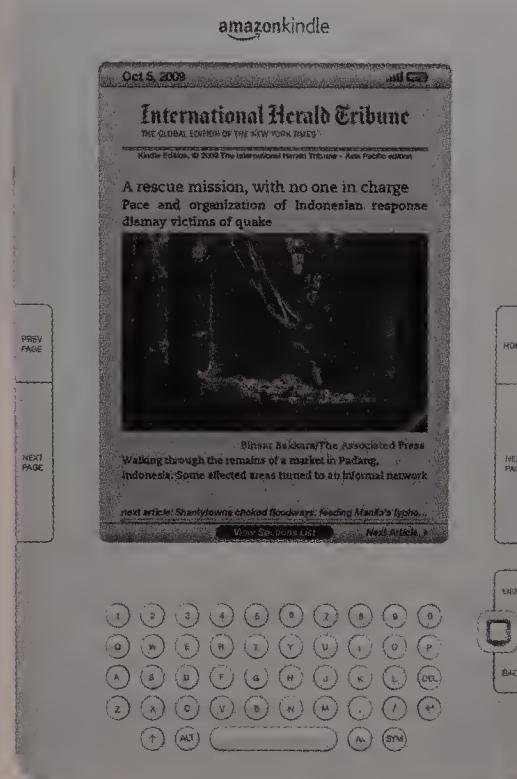
There's more to HandBrake 0.9.4 than I have room to describe here. Soon, you'll be able to check out the HandBrake Guide (macworld.com/5708) to find out what those other changes are. But at press time, the HandBrake team was still working on updating it for 0.9.4.

E-BOOK READER ROUNDUP

By Yardena Arar

The benefits of e-books are many.

Eliminating paper saves resources. E-book readers (also known as e-readers) take up little room in travelers' backpacks and



purses, and yet can store the equivalent of a whole bookshelf. You don't have to go anywhere to buy or borrow an e-book title. For people with visual impairments, the ability to adjust font size can mean the difference between being able to read a book and having to hope that the publisher will eventually release an audio version. Some e-book readers double as music players, and some even have a speech capability for reading books aloud.

We recently completed thorough hands-on testing of several of the top e-readers available today and came to a surprising conclusion: Our number one choice isn't from Amazon at all; it's the Sony Reader Touch Edition. Of course, no company's lead in the rapidly evolving e-reader market is safe. For full reviews of the eight e-book readers we looked at, visit macworld.com/5675.

PRODUCT	RATING	PRICE	DESCRIPTION
Amazon Kindle (second generation) www.amazon.com	3 1/2	\$259	While Amazon has made some successful enhancements to its e-reader, other tweaks fall flat or miss the mark entirely.
Amazon Kindle DX www.amazon.com	4 1/2	\$489	Though the Kindle DX is an impressive e-reader, its high price will likely turn off some prospective buyers.
Astak EZ Reader PocketPro www.theezreader.com	3 1/2	\$200	The Astak EZReader PocketPro has lots of great features for its price, but they don't make up for poor font options and subpar usability.
Barnes and Noble Nook www.barnesandnoble.com	3 1/2	\$259	Poky performance issues prevent us from making an unqualified recommendation of this e-reader.
Foxit eSlick Reader www.foxitsoftware.com	3 1/2	\$260	This e-reader is curiously named because it is decidedly unslick, with a utilitarian appearance that lacks the elegance of competing e-book readers.
Interead Cool-ER www.coolreaders.com	3 1/2	\$249	From its aspirational brand name to its hip tinted metallic case, Interead's Cool-ER e-reader clearly strives to distinguish itself from the black-and-gray competition.
Sony Reader Pocket Edition PRS-300 www.sonystyle.com	3 1/2	\$200	The Sony Reader Pocket Edition delivers mainstream e-reader features in a highly portable package at a great price.
Sony Reader Touch Edition PRS-600 www.sonystyle.com	4 1/2	\$300	With the addition of ePub support, the Sony Reader Touch Edition shapes up as a formidable competitor to Amazon's Kindles.

CLASSICAL MUSIC DOWNLOADS COME OF AGE

By Kirk McElhearn



Classical Music Downloads The New York Philharmonic iTunes Pass costs a pretty penny, but it includes a lot of music, to be provided over nine months.

While the classical music genre hasn't had as high a profile in the online music marketplace as more popular genres have, it is indeed available.

For example, Apple recently announced an iTunes Pass featuring most of the New York Philharmonic's 2009–2010 season. For \$150, you can get more than 50 works, or more than 30 hours of music, updated regularly. The Philadelphia Orchestra (www.thephiladelphiorchestra.com) and the Boston Symphony Orchestra (www.bso.org) sell recordings directly.

Many classical download sites sell recordings in lossless file formats. Sites like Passionato (www.passionato.com) offer FLAC files together with MP3s for albums from major labels such as Deutsche Grammophon and Virgin. High-resolution files (such as 24-bit, 96kHz downloads) are available from a number of sites. Linn Records (www.linnrecords.com) has downloads of what it calls "studio masters" in a variety of sample rates, from its own label and others. Those high-quality formats cost more than regular files: For example,

one album that costs \$11 in 320 Kbps MP3 format is \$24 to \$27 for studio masters.

Buy Directly from Labels

The real future of classical downloads lies with individual labels that offer downloads from their Websites. The Danish label Dacapo (www.dacapo-records.dk) has started selling its wares by download, offering files in 320 Kbps MP3, FLAC, and WMA lossless formats. However, its prices are a bit higher than elsewhere: A recent single-disc album costs \$15 in MP3 format and \$17 in FLAC. A lot of these label sites are clunky and hard to navigate, or have limited search features—though for small labels with limited catalogs, this is less of an issue.

Major labels aren't left out, but not many of them sell directly; they seem to prefer being well positioned in supermarkets. One exception is Deutsche Grammophon, which sells its music directly from its well-designed site, though not all of its catalog is available. The site is fine for searching, but not for browsing, as only the newest releases are easily visible.

clingo.com



Macworld
Conference & Expo
Booth 1777

stick to it
by Altsop

Five iTunes Myths

By Jonathan Seff



There's a lot of misinformation out there about iTunes and iPods. Here's the truth about five of the most common myths.

1. The iTunes Store uses digital rights management (DRM).

When Apple launched the iTunes Music Store in 2003, it used its own FairPlay DRM to control the use of purchased music. In 2007, Apple began offering DRM-free versions of some songs and albums. In April 2009, Apple removed DRM completely.

2. AAC works only in iTunes or on an iPod or iPhone.

Apple uses AAC (Advanced Audio Coding) for all music sold on the iTunes Store. AAC works on Microsoft's Zune and Sony's Walkman players, many Sony Ericsson phones, the Sony PlayStation and PSP, streaming audio systems from Sonos and Squeezebox, and many software players, as well as on iTunes, iPods, and iPhones.

3. I can't burn an audio CD from iTunes.

Apple has always allowed you to create standard audio CDs from purchased iTunes tracks that would play in any CD player. The only restriction was the number of times you could burn an individual playlist.

4. I can't get my DVDs into iTunes or play them on an iPod.

See this month's story about HandBrake (page 64).

5. I can't play videos from my iPod or iPhone on my TV.

You can use the Apple Component AV Cable (\$49) or Apple Composite AV Cable (\$49) to connect the dock connector on your iPod, iPhone, or Universal Dock to your TV. As an added bonus, each package also includes a USB power adapter in the box (normally a \$29 purchase).

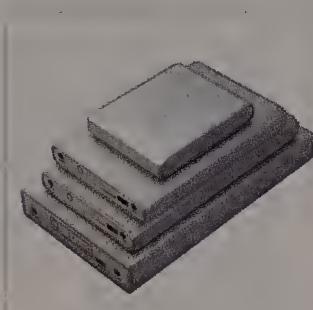
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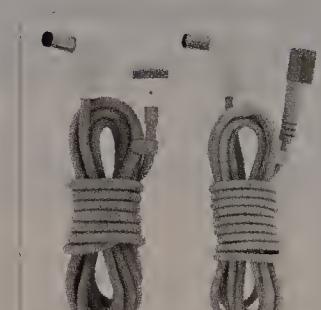
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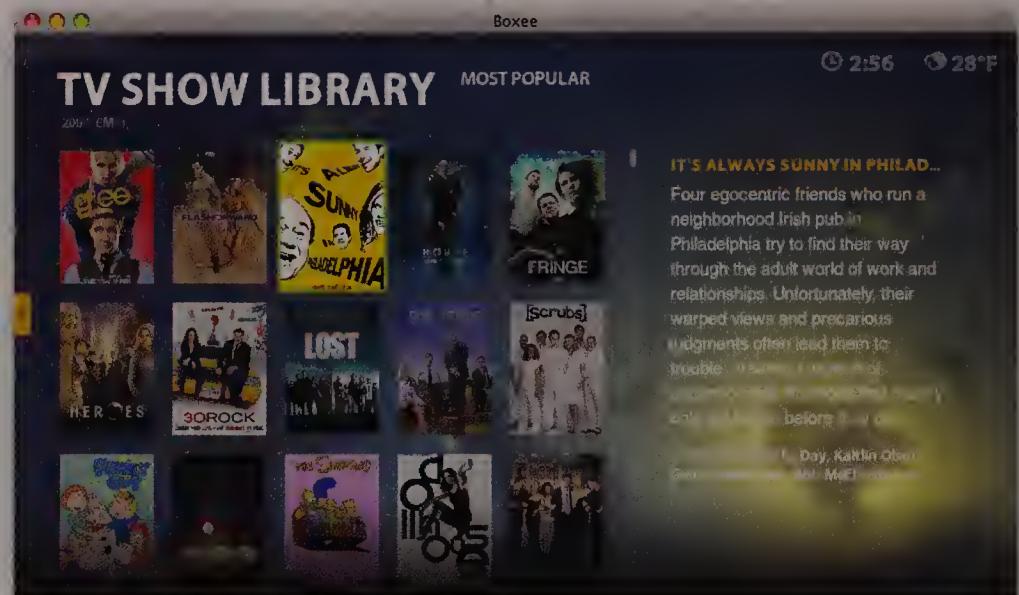
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BOXEE SHOWS OFF BETA VERSION WITH IMPROVED INTERFACE

By Christopher Breen

Boxee (www.boxee.tv) recently released a beta version of its media center application for OS X, Windows, Linux, and Apple TV. The Boxee software, based on the open-source XBMC (xbmc.org), lets you watch and listen to content from your hard drive, as well as streaming content from Hulu, Netflix, and more. With the move from alpha to beta status, the software gets a vastly redesigned interface and the addition of a couple of new apps as well.

One of the biggest complaints about Boxee has been its ungainly interface. Plex (www.plexapp.com)—also based on XBMC—provides a far slicker experience. Boxee's developers have made a number of changes in the beta version to make it easier to locate content—both



locally and on the Web. First, the home page is no longer shunted off to a sidebar, but placed right in front of you. The beta also includes a new global

menu and shortcuts. Hinting slightly at the new Apple TV interface, this overlaid global menu includes settings along the top, content categories in the middle,

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Sync is here Pocket Informant, the iPhone's most versatile calendar/tasks Personal Information Manager (PIM) sets itself apart from the rest by providing the ability to sync to the other systems you hold dear. Now syncing with Google, Toodledo, Outlook, and Mac OS X.
(note: Desktop Sync information available at our website)
www.pocketinformant.com | 2010 ©

and shortcuts to favorite apps, TV shows, movies, and albums at the bottom.

Finally, getting to the Now Playing screen is easier, as is finding movies, TV shows, and music—both stored on your computer and over the Internet—through an integrated search feature. The new Boxee also lets you browse popular movies on the Internet from within the Movies library. You can now also filter these movies by genre and cost.

The Boxee beta includes content from three new partners: Clicker (www.clicker.com), The Escapist (www.escapistmagazine.com), and Suicide Girls (www.suicidegirls.com). Clicker is a guide to over 400,000 Web videos, The Escapist is a video game review site, and Suicide Girls features racy photos and videos of girls with ink and a variety of objects embedded in their skin. Parents concerned about images of naked tattooed women will be relieved to know that the Boxee beta also includes parental controls.

Lala and iTunes: What It Means to Me

By Christopher Breen

Because I subscribe to Rhapsody and Napster already, and use a Sonos Multi-Room Music System to channel music throughout my home, I've had no need for Lala (www.lala.com). But still, there are two potential benefits to Apple's acquisition of the music streaming service.

First is the ability to keep an eye on what your buddies are listening to. iTunes is almost entirely deaf to social networking. Sure, there are ways to tell the world what you're listening to via iChat, Twitter, and Facebook. But who really wants a ticker-tape account of one person's listening habits? Lala provides a rundown

of several buddies' daily playlists. Keeping track of what my friends are listening to would be a great way to find new music.

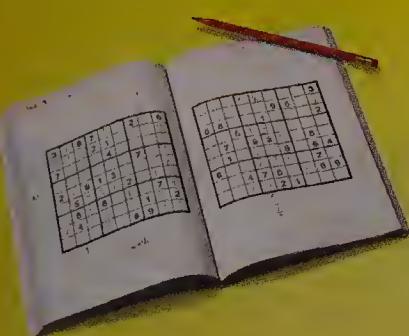
Second, I like the idea of being able to access the contents of my iTunes library

from any Web browser.

The idea behind Lala's Music Move feature is that you upload a list of the music in your library (thus proving that you own it), and Lala grants streaming access to copies of those tunes in its library. iTunes 9's Home Sharing feature helped break down the barrier between music libraries on a local network. Breaking down those barriers across the Internet is another step in the right direction.



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Reviews

HOME ENTERTAINMENT HARDWARE,
SOFTWARE, AND ACCESSORIES

HARDWARE

Sennheiser CX 200 Street II ▶

These entry-level earphones are an affordable alternative to Apple's own iconic white earbuds; if you shop around, you can find them for nearly half the suggested retail price of \$45. Yet their sound quality is impressive, with rich, detailed reproduction and decent treble and bass. And their build quality, comfort, and looks aren't compromised, which sets them apart from other earphones in this price range (macworld.com/5668).

4 1/2; \$45; Sennheiser, www.sennheiser.com



Roth Audio Alfie ▶

The Alfie is a stereo system for your iPod, a CD player, an AM/FM radio, and a DVD player all rolled into one. Overall, the sound is OK, but the high price tag reflects the unit's multipurpose nature rather than exquisite audio output (macworld.com/5669).

4 1/2; \$815; Roth Audio, www.rothaudio.co.uk



ViewSonic VPD400 MovieBook HD ▶

The ViewSonic VPD400 MovieBook HD video player has a wallet-friendly price tag, but it omits a lot of features. Although not everybody needs Wi-Fi capability or applications with their portable media player, a touchscreen is absolutely necessary on a device like this. The navigational buttons are frustrating to use, especially if you have a rather large media collection to scroll through (macworld.com/5670).

4 1/2; \$140; ViewSonic, www.viewsonic.com



Vizio VT420M ▶

The VT420M is one of Vizio's more expensive 42-inch LCD HDTVs, but it's moderately priced for its class and features. It's a sensible buy if you want good image and sound quality without spending a fortune, and if you don't need advanced controls (macworld.com/5671). 4 1/2; \$1000; Vizio, www.vizio.com



HP MediaSmart EX495 ▶

The speed and features of the MediaSmart EX495 home media server might appeal to many users, but those who use Macs should be warned: The media server's setup process is not Mac-friendly. Best suited for homes with a mix of PCs and Macs, the EX495 is hard to endorse over more Mac-compatible servers (macworld.com/5672). 4 1/2; \$700; Hewlett-Packard; www.hp.com



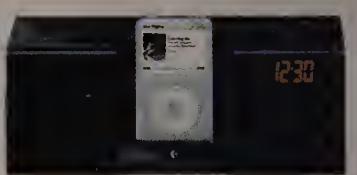
Cisco FlipShare TV ▶

It's hard to recommend the FlipShare TV to people who mainly want to view FlipChannel content over a Wi-Fi-connected computer, especially in a crowded environment where many Wi-Fi networks may be vying for limited bandwidth. But for Flip camcorder fans who are willing to pay handsomely to view their own videos on a big screen (or for people whose computers are on a wired network), the FlipShare TV works well (macworld.com/5673). 4 1/2; \$150; Cisco; www.theflip.com



Logitech Pure-Fi Anytime ▶

The Pure-Fi Anytime has a few minor problems (such as a gimmicky motion sensor and a too-bright display), but it's a solid unit overall. If you want a simple iPod clock radio, it should do (macworld.com/5674). 4 1/2; \$99; Logitech, www.logitech.com



iPods: Current Lineup

PRODUCT	SPECS	RATING	PRICE ^A	DISPLAY	PERFORMANCE	FIND CODE ^B
iPod Classic	160GB	4 1/2	\$249	2.5-inch color	36 hours of music playback; 6 hours of video playback	5262
iPod Touch	8GB	4 1/2	\$199	3.5-inch color	36 hours of music playback; 6 hours of video playback	3864
	32GB	4 1/2	\$299	3.5-inch color	36 hours of music playback; 6 hours of video playback	5257
	64GB	4 1/2	\$399	3.5-inch color	36 hours of music playback; 6 hours of video playback	5258
iPod Nano	8GB	4 1/2	\$149	2.2-inch color	24 hours of music playback; 5 hours of video playback	3867
	16GB	4 1/2	\$179	2.2-inch color	24 hours of music playback; 5 hours of video playback	3868
iPod Shuffle	2GB	4	\$59	none	10 hours of music playback	5267
	4GB	4	\$79	none	10 hours of music playback	5268

^AAll prices are Apple's prices. ^BIn a browser's address field, typing a find code after macworld.com/ takes you to a product's review or overview.

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Hot Stuff

WHAT WE'RE RAVING ABOUT THIS MONTH

Icon uDAC

Getting great sound out of a computer presents two big challenges: overcoming the machine's usually lackluster built-in audio circuitry and the generally subpar headphone jack. For just \$99, NuForce's Icon uDAC addresses both problems. The uDAC's deceptively small (2.7 by 1.5 by 0.8 inches), machined-aluminum enclosure hides an impressive array of audio components, including a high-quality digital-to-analog converter (DAC) and a beefy headphone amp designed for high-end cans. Connect the uDAC to your Mac's USB port (which provides the digital-audio signal and power), and the uDAC puts out an analog signal for your headphones or audio system. The uDAC can also convert that digital signal to a coaxial version for outputting to a separate DAC (www.nuforce.com).—DAN FRAKES



iHome iA5

Alarm clocks for your iPod and iPhone abound, but iHome's iA5 (\$100) is the first that works with your iPod touch or iPhone. Like most iPod alarm clocks, the iA5 charges your device and lets you listen to its media while it's docked. But unlike other products, you control the iA5's alarms via a free iPhone app. This app lets you create multiple sleep profiles that include different alarm schedules for different days of the week, as well as custom "wake-up screens" that display weather, news, to-do lists, and more. The app can also track your sleep schedule over time. And because your alarms are stored on your iPod touch or iPhone, you can set or modify them anywhere, anytime (www.ihomeaudio.com).—DAN FRAKES



idox Travel Case for iPod Touch

The iPod touch's size is great for using apps, but it's not so comfortable to hold for a two-hour movie. idox's \$35 Travel Case for iPod touch combines a protective case with a video-watching stand. When the case is shut, your iPod touch is enclosed in a rigid shell. But flip its hinged front around, and it holds your iPod touch at a good viewing angle. There are also versions for the nano and the iPhone (www.idox360.com).—DAN FRAKES



iSkin Vibes for Nano 5G

The latest iPod nanos may be sleek and vibrant, but iSkins' \$25 Vibes for nano 5G add even more flair. They feature four designs (Croc, Enchanted, Ivy, or Orbitz) in crystal-clear, rigid silicone; it looks like the pattern is laser-etched on your iPod. For extra protection and security, you also get a rigid screen protector and a wrist strap (www.iskin.com).—DAN FRAKES

JVC XS-SR3

JVC's new \$150 XS-SR3 iPod speaker dock can hold your iPod or iPhone in vertical (portrait) or horizontal (landscape) orientation. The vertical works like most every other speaker dock, but the horizontal could be great for watching movies. Its wide design also makes it stand out among other iPod speakers in the crowded field. The XS-SR3 supports a variety of iPod models, and it offers Dolby Virtual Speaker surround sound. There's also one analog and one digital audio input for connecting other devices (www.jvc.com).—LEX FRIEDMAN



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PHOTOSHOP CELEBRATES 20 YEARS

By Pamela Pfiffner

Adobe Photoshop is so intrinsic to our daily digital lives these days, you might find it hard to believe that the program is just two decades old. In the 20 years since its introduction, Photoshop has changed the way we see the world, altered our sense of reality, and transformed the way we express ourselves.

Stop for a moment and take a look around you. Nearly every image you see today—in ads, on billboards, in magazines, on Websites, and in newspapers—was touched in some way by Photoshop. Its influence is so great that the program has even earned a place in the vernacular: The verb *to photoshop* has become shorthand for the act of altering digital images. (Adobe bristles at such usage of its trademarked application name.)

Who knew that the software begun as a way to procrastinate in the face of a looming Ph.D. thesis would have such an impact? When Thomas and John Knoll, the brothers who created what we now know as Photoshop, suspected the software could be more than their private diversion and went looking for investors to fund the development, Silicon Valley for the most part said, "No thanks." Eventu-



ally, Barneyscan, a small slide-scanner developer, agreed to a short-term license. Only 200 or so copies of the application called Barneyscan XP sold, but it represented the program's first commercial connection to photography. (Today, Photoshop geeks brag about not only having used Barneyscan XP but also owning the original floppies of what was officially Photoshop version 0.87.)

Finally the folks at Adobe saw it. To its credit, the company licensed the software without hesitation in 1989. Adobe

Photoshop 1.0 was released in early 1990. Available only on the Mac, it was one of the platform's first "killer apps."

In its early days, Photoshop was searching for its true purpose. Like a child prodigy, it was good at so many things—from digital doodling to prepress production—that it didn't know where to focus its energy. Customers seemed to respond in kind. The program is so deep and all-encompassing that Adobe says most customers use only five percent of Photoshop's features.



February 1990

Adobe Photoshop 1.0 ships. Key features include color correction, image optimization for output, Curves and Levels, and the Clone tool.

1988

1989

1987

Thomas Knoll writes programming code to display grayscale images on a monochrome display.

1991

1992

1993

1994

June 1995

Photoshop 3.0 sees the birth of layers, along with tabbed palettes.



November 1996

Photoshop 4.0 adds adjustment layers for nondestructive color correction—and editable type.



But despite its other talents, photography has always been the beating heart of Photoshop. The Knoll brothers' father was an avid amateur photographer. In his father's basement darkroom, Thomas learned about the image essentials that would end up at Photoshop's core. As Photoshop evolved, so did the market it served. Scanning prints and negatives transitioned into doing everything digitally, and the equipment for producing digital photographs became more powerful and plentiful. As a result, more and more photographers saw the potential in Photoshop—and with their influence, digital photography became Photoshop's main mission.

It's hard to overstate the impact Photoshop has today. It repairs old photographs, thus preserving histories. It enhances scientific and medical images to help us communicate critical information and better understand the physical world. It can create entire worlds out of your imagination, giving shape and color to scenes unseen. And of course, it bestows the power to alter and enhance photographs—and in so doing, it tests the boundaries of perception and challenges us to exercise judgment about what we see.

That's the beauty, and the conundrum, of Photoshop. It is all these things and more. Personally, I'd rather Photoshop do too much than too little because I love to see what it can accomplish in the hands of the supremely talented. I once watched a celebrity photographer demonstrate how he was able to transform a photo of an internationally

famous musician from a squat, hunched-shouldered, gnome-like figure into an elegant, square-shouldered man whose image befit his reputation. It was, quite frankly, a startling metamorphosis.

Of course, these kinds of transformations are a double-edged sword. There are plenty of examples of misguided, over-the-top and just plain bad image manipulations—some of the funniest are found at PhotoshopDisasters.com.

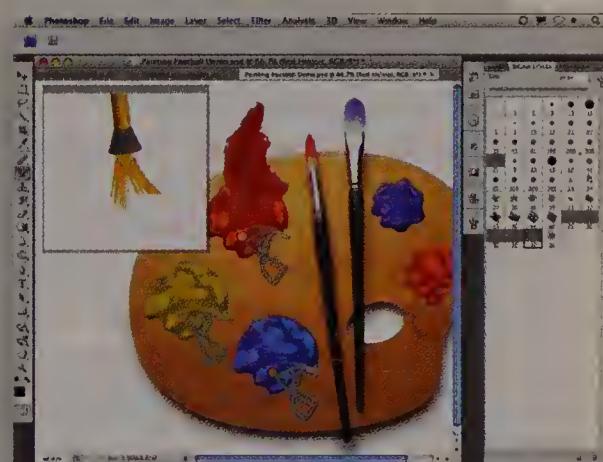
More disturbing is when Photoshop is used to alter real events and to affect our perceptions of right and wrong. Examples abound for these, too, from inserting or removing people from important events to compositing war scenes—the latter of which influences the historical record. (For examples, check out "Top 15 Manipulated Photographs" at macworld.com/5707.)

As Photoshop enters its third decade, let's celebrate the many ways in which the program has changed our lives for the better. Let's emphasize *Photoshop*, the proper noun, not *photoshop*, the verb. And let's honor what's at the heart of our favorite pixel-changing program: Today you can take a photo, and with a few clicks, coax light out of shadow, make the sky a deeper blue, and brighten your daughter's face. With a little work, you have more than a photo: You have a moment captured just as you saw it. And that's truly amazing.

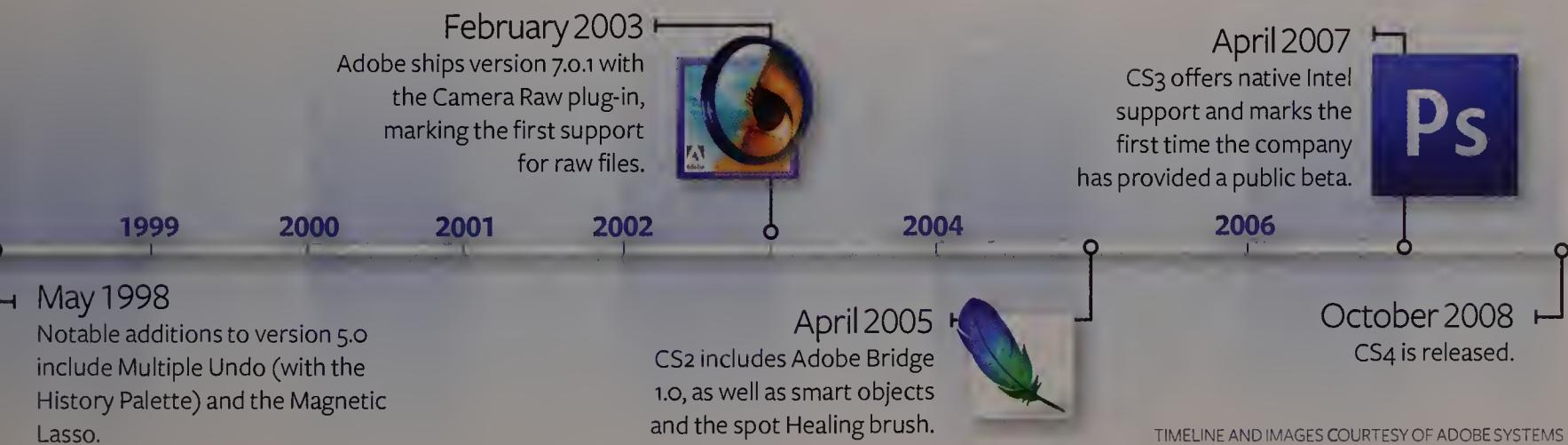
Pamela Pfiffner is a writer, editor, and consultant in Portland, Oregon. She is the author of *Inside the Publishing Revolution: The Adobe Story* (Peachpit Press, 2003).

What's Next for Photoshop?

Adobe hasn't announced many details about the next version of Photoshop, but it's offering a peek at new technologies currently under development. The company posted a video on Facebook demonstrating new natural-media painting brushes and a new warp tool. The painting tools aim to compete with Corel's Painter software. The video demonstrates colors being blended on a virtual palette and being manipulated by a brush in 3D space. The new warp tool lets you add control points to a flat image—at the subject's joints, for example—and then bend it in a realistic way. The video refers to the tools as "experimental," and Adobe doesn't guarantee when they'll appear in Photoshop. You can see the full video at macworld.com/5644.



See Photoshop's Future An online video demonstrates the way new brushes twirl and spread in 3D space.



TIMELINE AND IMAGES COURTESY OF ADOBE SYSTEMS

IMPROVE YOUR PHOTOS WITHOUT SPENDING A DIME

By Ben Long

It's easy for photographers to get preoccupied with questions about gear. But there's one thing photographers need more than any piece of equipment: good light. Good light can transform a pedestrian scene into a beautiful study of texture and contrast. The ability to recognize and exploit good light is often what separates a strong photographer from a weak one.

Defining 'Good Light'

So what makes some light good, and other light bad?

The Angle In the early and later parts of the day, when the sun is not overhead, it casts longer, darker shadows. With this type of light, even tiny bumps and contours on a surface will be more visible. When the light yields more contrast, this means your scene will have more detail and texture.

The Temperature As the sun sets, the light also gets warmer, which is often more attractive. For example, consider these two shots of the same scene (see "Wait for It"). The first one was shot at midday and the second was taken at sunset. Obviously, the sky is very pink in the second image, but note, too, that the grass is warmer, as is the thatch on the building. This warmer light is often far more interesting than the cool, white light of midday.

Taking Advantage of Good Light

While you don't have much control over the sun's rays, you can change your own habits to take advantage of good light whenever possible.

Choose Your Time Many photographers simply don't go shooting in the middle of the day. Instead, they time their excursions for early morning or late afternoon. As the sun is rising and setting, light changes very quickly, so your window of opportunity will vary depending on the time of year and your geographic location. Any source of almanac data can tell you



Wait for It Here you can see the difference between midday light and afternoon light.

when the sun will be rising and setting on a given day. iPhone users can check out Marc Edwards's Darkness app (macworld.com/5709), which tells when the sun will rise or set, as well as the time the sun is going to peak.

Take Advantage of the Season Many photographers prefer the light in the Fall to any other time of year. Fall light stays contrasty for a long time, because the sun doesn't rise as high. The light is softer and warmer than in any other season. So pick up your camera and head outdoors.

Be Patient When you see something that you want to take a picture of, first consider the light. If you have a good subject and a good composition, but the light just isn't what it needs to be to yield

a good shot, you'll either have to take the shot and settle for less, or wait for the light to improve. For shots that aren't time sensitive, make a mental note to come back later in the day or the next day at a better time. Professional photographers will sometimes wait days or weeks for the right light. At other times, you may have nice light, but not have a good subject. If you see a scene with nice lighting, wait until a subject moves into the frame to create a good composition.

As your understanding of light changes, so will the way you shoot.

Ben Long is the author of *Complete Digital Photography*, fifth edition (Charles River Media, 2009).

BUY THE RIGHT SD CARD

By Derrick Story

While some cameras come with a small starter memory card, most don't. Here are the important things to keep in mind when buying a memory card.

For the most part, SDHC cards have replaced SD memory cards. SDHC cards feature larger capacities and higher data-transfer speeds. Nearly all SD-compatible cameras sold today accept both card types, but if you have an old camera or reader, you may run into problems.

Capacity

For hobbyist photographers, I recommend a minimum card size of 2GB. If you shoot a lot of photos or shoot in Raw mode, you'll probably be happier with 8GB. Video capture requires even more room. While most still photographers can get by nicely

with 4GB, those who also shoot video should consider 8GB or 16GB cards.

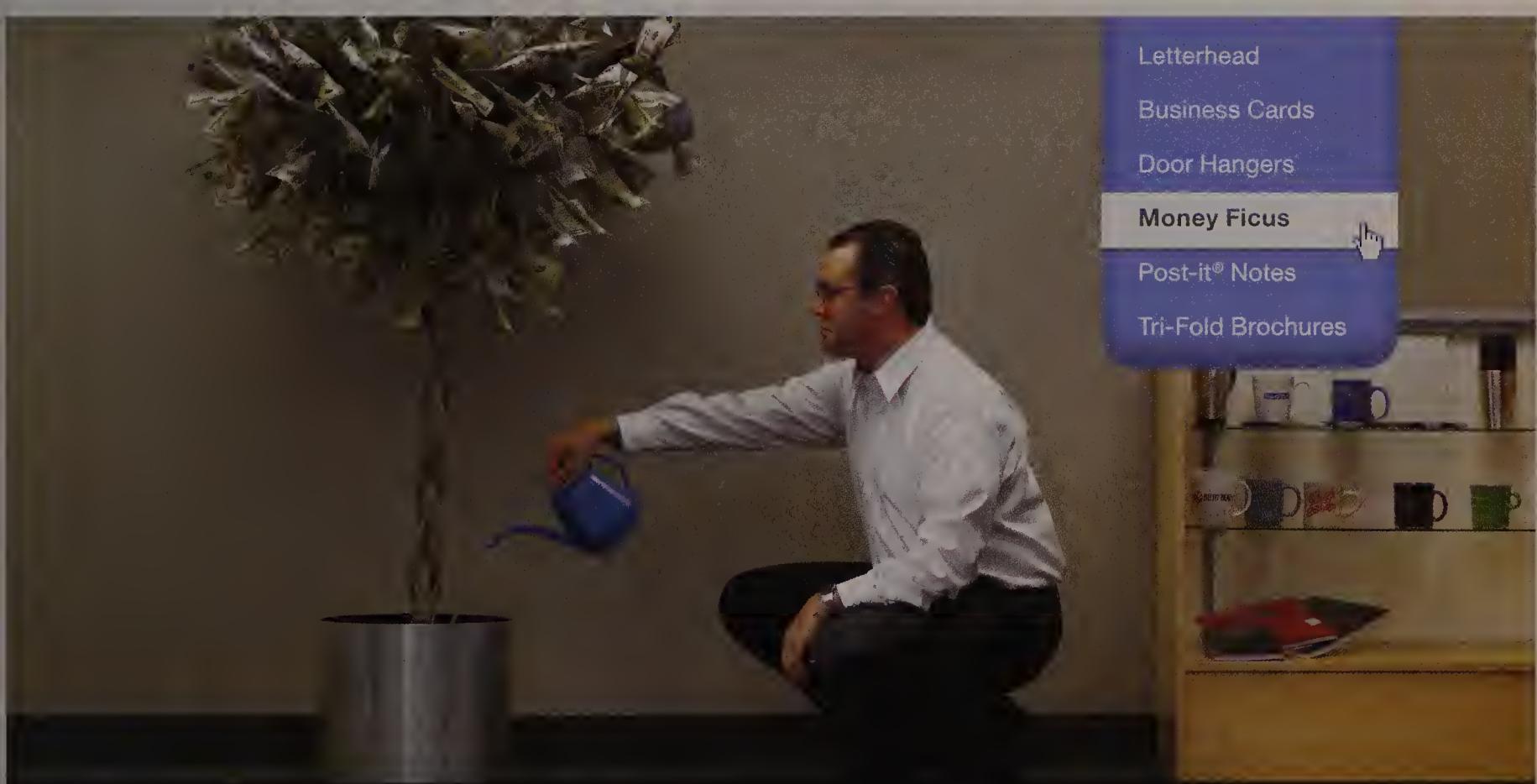
Transfer Rate

There are two transfer-rate criteria to consider: speed and class.

Speed A card's stated speed refers to the maximum rate at which still images can be written to the card. Some refer to speed in terms of "X." In these cases, "X" stands for 150KB per second. So a 200X card has a maximum speed of 200 multiplied by 150KB per second, or a little less than 30MB per second. Other manufacturers just spell it out by saying 30MB/s.

Most compact-camera shooters don't need to fret about speed. But if you're shooting raw files with a digital SLR, you might want to spend a few extra dollars to get a faster card, such as one that writes at 20MB to 30MB per second.

Class Most SDHC memory cards also display a Class rating, which indicates the *minimum* speed at which the card can record data. This rating is relevant only when recording video. So long as the card meets your camera's minimum requirements, you won't benefit from a faster card in this scenario. Class ratings are listed as 2, 4, 6, and 10. If you are shooting video (AVCHD or MOV) with a digital camera, then Class 4 should suffice unless otherwise stated in your camera's manual. Most camcorders will need Class 6, but check your camera's specifications to be sure.



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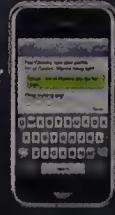
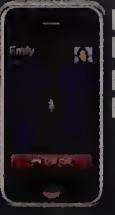
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MAP YOUR JOURNEY IN iPHOTO

By Kelly Turner

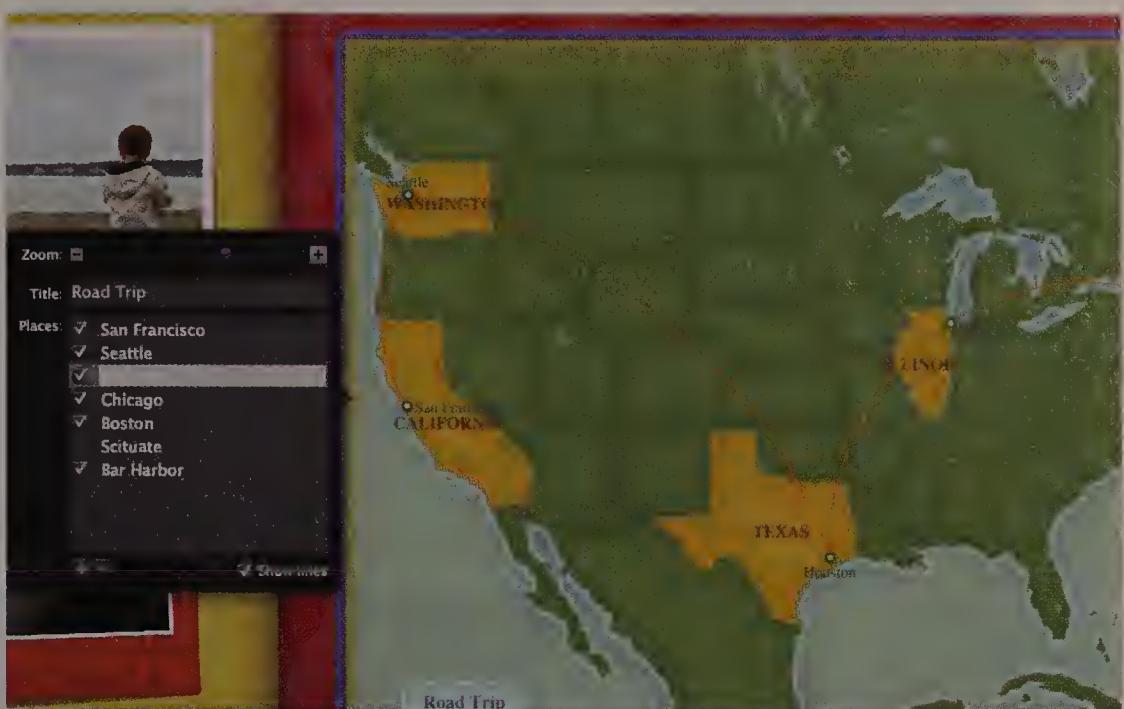
If you're using iPhoto '09 to document a road trip in a photo book, why not include a map that highlights where you've been?

Start by selecting Map Page from the book's Layout menu. If you've already added location data to any of your images, iPhoto will automatically pinpoint those locations on the map. If you haven't, you can add locations manually. Click once on the page to bring up your mapping options. In the resulting dialog box, you can add new locations, give your map a title, and adjust how much of the map is visible on the page. To pare down the number of mapped coordinates, remove the check mark next to the names of places.

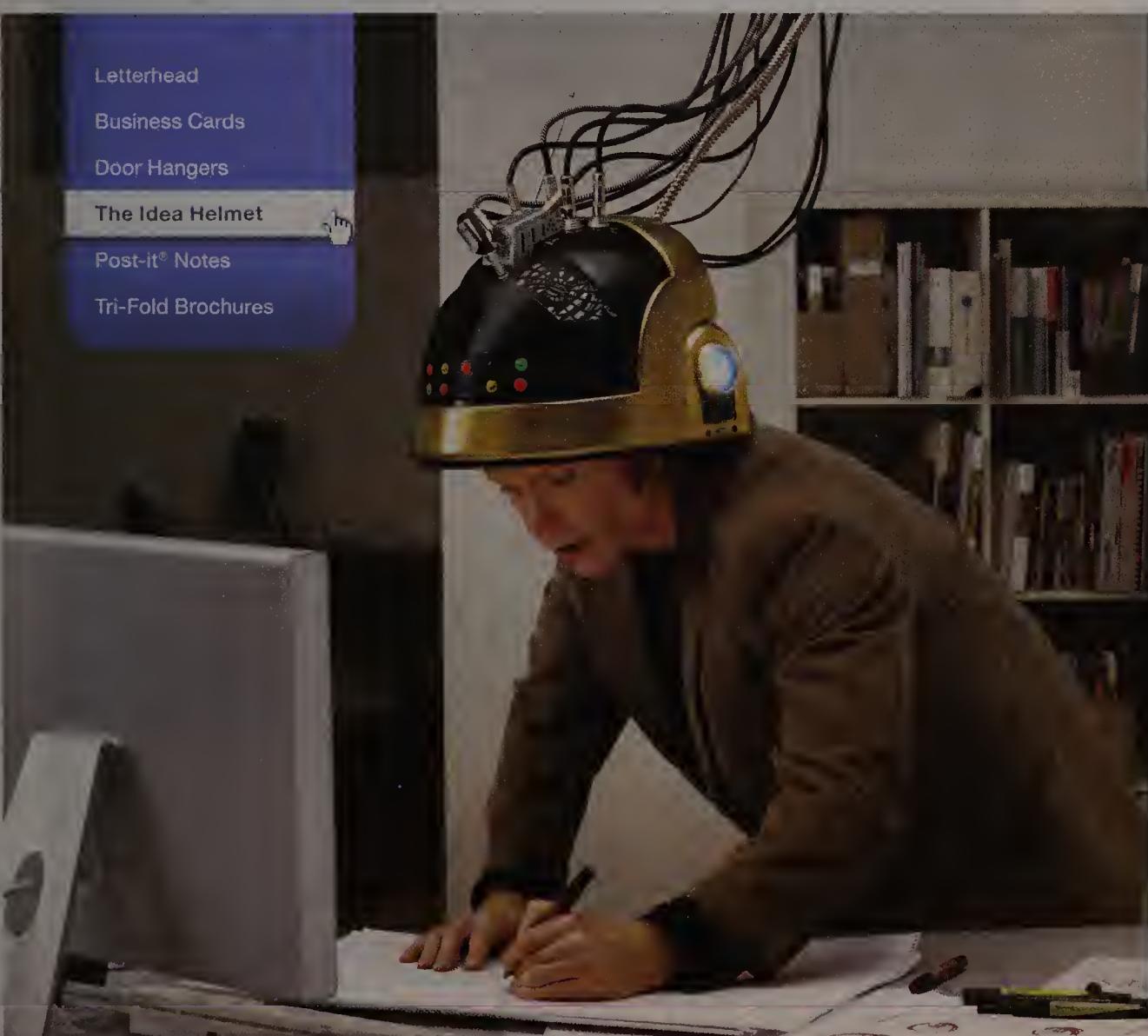
If you turn on the Show Lines option, iPhoto will even draw arrows from one location to the next. The direction of each

arrow is determined by the order of each destination in the settings dialog box. You can drag locations into the correct order.

Want to use your map in another project? Select File ▶ Print and use the Save As PDF option to save the page.



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Reviews

HARDWARE, SOFTWARE, AND ACCESSORIES
FOR MAKING AND MANAGING PHOTOGRAPHS



HARDWARE

HP Photosmart A646 △

HP's compact photo printer offers a few surprising features for its midrange price. Most snapshot printers produce only one size of photo, but the Photosmart A646 produces three: 4 by 6 inches, 4 by 12 inches (panoramic), and 5 by 7 inches. The A646 is easy to use, includes a 3.45-inch touchscreen LCD, and offers fun image-editing tools. However, it falls slightly short in speed, print quality, and ink costs (macworld.com/5642).

3 1/2; \$150; Hewlett-Packard, www.hp.com



Isabella Vizit △

The Vizit photo frame sports a 10-inch (800-by-600-pixel) touchscreen LCD. However, the frame has a thin, plasticky feeling, with an articulating support that folds down in back. You can authorize friends and family members to send photos from their e-mail accounts or mobile phones to the Vizit, using the AT&T network, so there's no need for card-swapping or USB drives. But on top of the cost of the frame, you must purchase a photo

plan that includes photo management, third-party content, photo sharing, and cellular connectivity—all of which add to the cost (macworld.com/5643).

3 1/2; \$280; Isabella Products, isabellaproducts.com

Panasonic Lumix DMC-GF1 ▷

The Lumix DMC-GF1 is smaller than any other SLR out there, but it still offers removable lenses—giving you the benefits of an SLR in a camera that's almost pocketable. Even better, it provides a very satisfying shooting experience. The camera is sturdy and well made, and offers an intuitive interface that makes changing



settings simple. Image quality is very good, thanks to the camera's sensor, its processing prowess, and the extremely high-quality lenses. However, the camera doesn't have an optical viewfinder (macworld.com/5598).

3 1/2; \$900; Panasonic, panasonic.com

Top Products

YOUR GUIDE TO THE BEST HARDWARE WE'VE TESTED



DIGITAL CAMERAS SLR

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
D90 (pictured) www.nikon.com	4 1/2	\$1049	12.3-megapixel	4966
EOS Rebel XSi www.canon.com	4 1/2	\$545	12-megapixel	3898
E-30 www.olympusamerica.com	4 1/2	\$949	12.3-megapixel	4453



DIGITAL CAMERAS Point-and-Shoot

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
Exilim Zoom EX-Z250 (pictured) www.casio.com	4 1/2	\$236	9.1-megapixel	4256
Lumix DMC-GF1 www.panasonic.com	4 1/2	\$899	12.1-megapixel	5598



PRINTERS Inkjet

PRODUCT	RATING	PRICE ^A	TYPE	FIND CODE ^B
PictureMate Dash PM 260 (pictured) www.epson.com	4 1/2	\$170	snapshot, photo	5609
Stylus Photo R1900 www.epson.com	4 1/2	\$377	professional photo quality	3649

^A All prices are the best current prices taken from a PriceGrabber survey of retailers at press time. ^B In a browser's address field, typing a find code after macworld.com takes you to a product's review or overview.

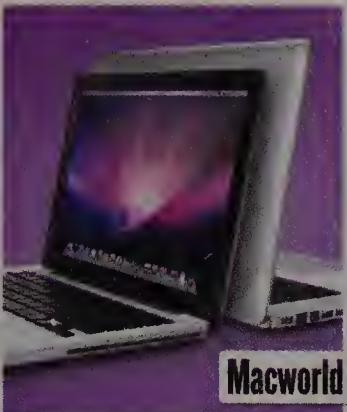
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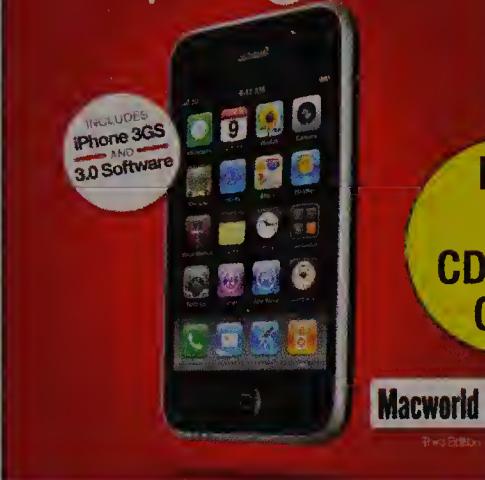


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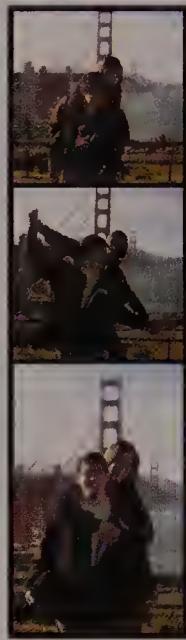
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Macworld

Hot Stuff

WHAT WE'RE RAVING ABOUT THIS MONTH



Shutterfly Wink

Hard copy is becoming a lost art. The online photo-printing service Shutterfly is hoping to change that with Wink, an iPhone app and Website that lets you make simple adjustments to your digital photos and then send 2-by-6-inch prints of the images to your friends worldwide. Each print costs \$2.50 and consists of a strip of three to five photos. You can import photos directly from your iPhone Camera Roll, computer, Facebook account, or Flickr photo stream.

If you don't know where your friend actually lives in today's predominantly online world, Wink will even ask your friend via e-mail for an address to ship your photos to (wink.shutterfly.com).—NICHOLAS BONSACK

PICTUREMATE SHOW

Thanks to a gigantic LCD, Epson's newest portable printer can serve as both a printer and a picture frame. The \$300 printer has a 7-inch (800-by-400-pixel) widescreen LCD. Epson includes 12 slideshow formats, a remote control, and 270MB of internal memory to store pictures. The PictureMate Show can also read images from memory cards, USB flash drives, cameras, and mobile devices via Bluetooth. While the compact printer produces only 4-by-6-inch photos, Epson claims that it can produce a single print in just 37 seconds. Epson sells both glossy and matte refill packs for \$38 each (www.epson.com).—ROMAN LOYOLA



LumaLoop

You can't get great photos if you don't have your camera with you. The \$60 LumaLoop, by Luma Labs, makes slinging your camera over your shoulder more comfortable. The curved design distributes the camera's weight, while a detachable lanyard connects to any mounting point on your camera. To shoot, just swing your camera up to your eye; the lanyard slides along the strap. To switch cameras, simply unhook the current lanyard and replace it with the next (luma-labs.com).

—KELLY TURNER



Cooliris Express

Tired of traditional Web galleries? Cooliris Express is a free online tool that lets you quickly build and post an immersive wall of photos and videos. (It supports more than 20 social media sites and blogs.) Once you've selected your media, Cooliris pulls the files into an interactive 3D "wall" that users can pan and zoom with a mouse. And walls are dynamic, so new photos appear automatically (cooliris.com).—JACKIE DOVE



Photoshop Magnets

A good pixel-pusher understands that no photo is ever truly "finished." So your latest prints should feel right at home beneath these Photoshop-themed fridge magnets. The \$25 set includes 11 magnets showcasing different tools and panels from your favorite photo editor (photojojo.com/store).—KELLY TURNER





For iPhone 2G/3G/3GS/iPod

Direct plug-in/no cable.
Includes 2G/3G support brace.
RS001 \$69.95



For iPhone/iPod with Cable

Cable connection only.
Perfect for iPod touch.
RS008 \$69.95



For All BlackBerry/Smartphones

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Works with all USB-port phones.
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10 Reasons Richard Solo 1800 is the **best** backup battery for iPhone/Smartphones — and *Macworld* saves you \$20. **You pay only \$49.95**

1. It is the only one that actually "latches" onto the iPhone — very stable.
2. Includes free, slim, protective hard case for iPhone 3G/3GS (\$24.95 value) that works perfectly with included support brace.
3. Unlike "slipcase" configurations, there is no rear blockage of your cell phone antenna.
4. Licensed and certified by Apple for iPhone 2G/3G/3GS/iPod.
5. Built-in flashlight is surprisingly useful and bright; laser pointer included.
6. Lightweight — you can easily carry it in your pocket, and top up your iPhone and iPod as needed.
7. Choose from two models: direct plug-in or cable. Both are 1800 mAh lithium-ion rechargeable!
8. We support you. Quick email response by the best customer service in the industry, and a full 1-year warranty.
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INTEGRATE YOUR iWEB SITE WITH FACEBOOK

Web design meets social networking via widgets

By Adam Berenstain

Y our iWeb site and Facebook profile represent you and your interests to the world. Wouldn't it be great if they worked together? Fortunately, it's easy to go beyond the basic Facebook integration in the latest version of iWeb to boost your site's visibility to friends, family, and associates.

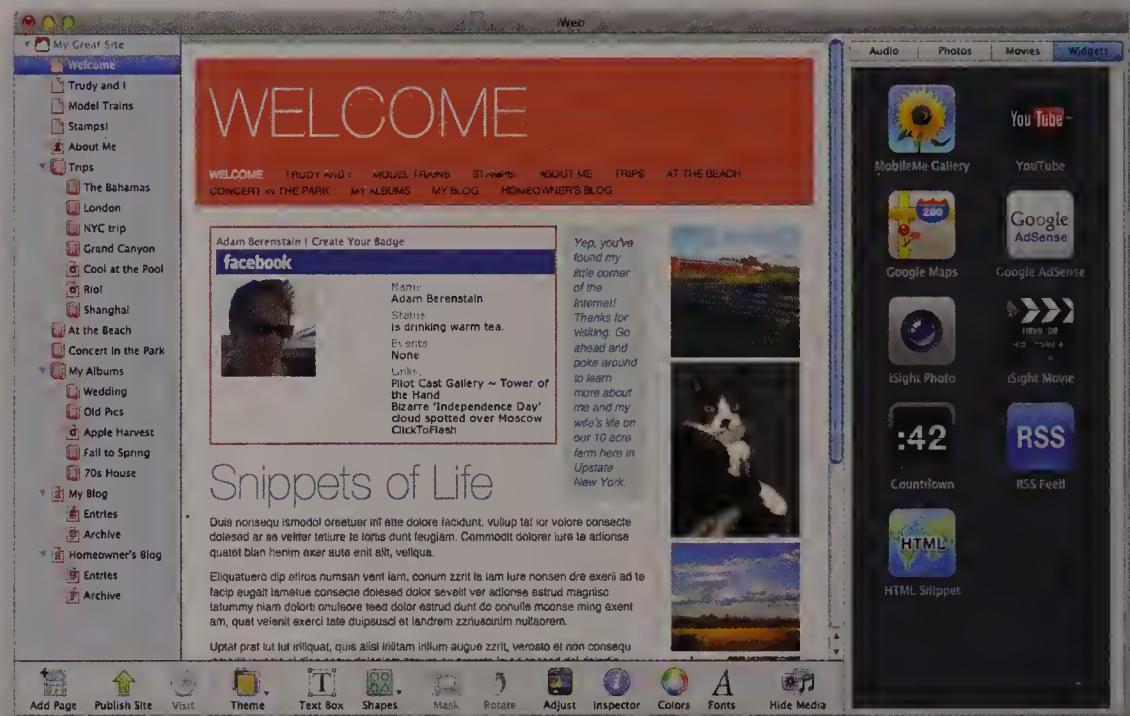
Create Facebook Badges for iWeb

Badges are widgets that automatically refresh to add Facebook information to your Website. To get started, open your Facebook Profile and click the Create A Profile Badge link beneath the left column (you may have to scroll to the bottom of your Profile page to see this).

Click the Edit This Badge link and then click the checkboxes to customize the badge's layout and content (which can include your picture, status, contact information, and more). After you save the badge, you can create and save other profile badge designs, as well as photo badges showing pictures you've uploaded to Facebook and fan badges that promote causes or celebrities you favor. To export your badge to iWeb, select Other (under Choose Where To Add The Badge) as its destination and copy the resulting code.

Next, open your site in iWeb and select the Media Browser's Widgets button. Drag the HTML Snippet widget into the page you want it to appear on, paste in the code, click Apply, and close the box. Then upload the revised page.

Now when you update your information on Facebook, it will also update in your badges, and give visitors a direct link to your Facebook profile. This can get quirky. Sometimes, the code snippet that



Facebook-iWeb Connection Using Facebook's Badges feature makes it easy for you to add dynamic content to your iWeb site.

Facebook generates content you may not want, such as your username and text that reads "Create your badge" at the top (see "Facebook-iWeb Connection"). If you don't want that information to appear, you can remove it.

To fine-tune the badge's appearance, you can edit its code directly. In iWeb, click the widget on your page to expose the code, make your changes, apply, save, and re-upload the page. If you make a mistake, don't worry—starting all over again is easy. If you want to, you can store the original code in a sticky note for safekeeping.

Add iWeb's RSS Feeds to Facebook

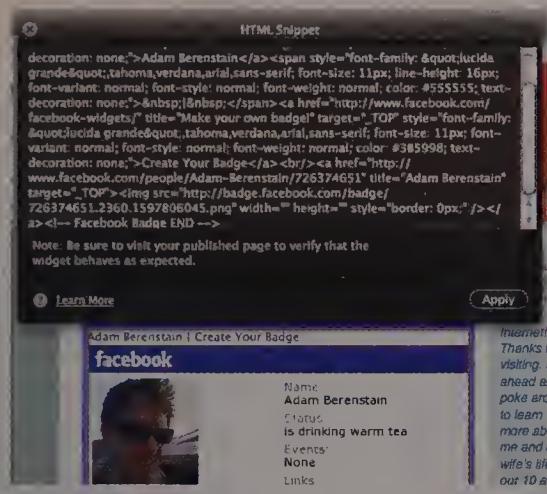
RSS (Really Simple Syndication) feeds let visitors subscribe to updates from your iWeb site's photo, movie, and blog pages. RSS can also bring links to this

content to your Facebook profile.

You can find a number of dedicated RSS applications on Facebook (such as Social RSS) that can show multiple feeds simultaneously or offer sophisticated display and subscription options. However, if you keep just one blog, Facebook's own Notes application is a simple alternative.

First, open your blog in a browser and copy its URL, then log in to Facebook. At the bottom left corner of the window, click Applications and select Notes (you may have to click the More button for Notes to be visible). Your Notes Settings are on the right of the resulting page.

Click the Import A Blog link and paste your blog's address in the Web URL field. Facebook finds your blog's RSS feed and presents a preview for you to confirm. New blog posts will now appear automatically.



Edit Directly Fine-tune the text of your badge simply by editing iWeb's HTML snippet.

cally in Notes and on your Wall, complete with images and links back to your iWeb site. There may be a delay between the time you post an update and its appearance on Facebook. Note that if you add photos to your post, only the main photograph will appear in Notes. Embedded videos and additional photos won't. However, since each post links back to your original iWeb blog, this content is only a click away for your readers.

Adam Berenstain is a freelance writer based in upstate New York.

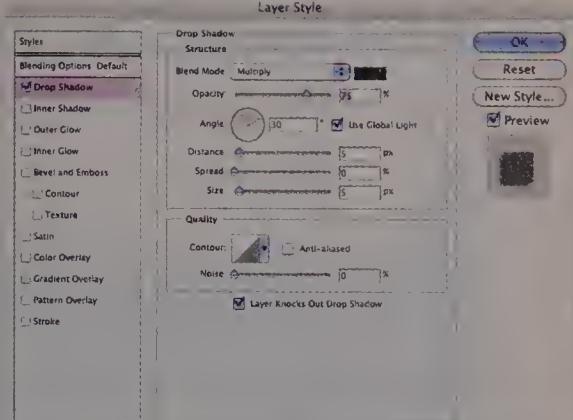
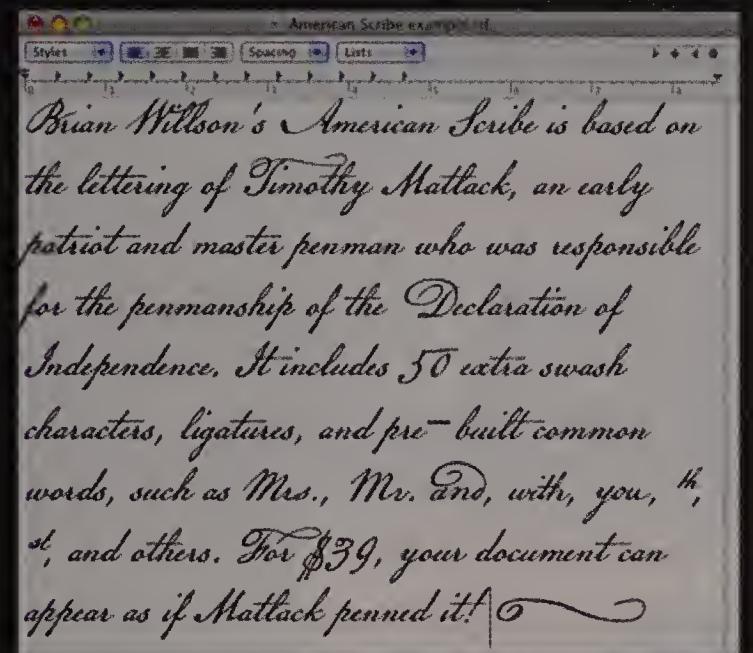
FEATURED FONT American Scribe

While visiting the National Archives in Washington, D.C., I had the privilege of viewing original versions of the Declaration of Independence, the Constitution, and the Bill of Rights. The penmanship in the Declaration of Independence should be quite familiar to most Americans, as they've probably seen it dozens, if not hundreds, of times.

But viewing it in person, I was taken by the handwriting style of the document, which was produced with just a bottle of ink and a quill pen. It's a style that falls into today's typeface category of Script. I mistakenly assumed that the penmanship belonged to Thomas Jefferson, the acknowledged author of this great work. As it turns out, although Jefferson was the author, the final document (and many other important documents of the time) was actually penned by Timothy Matlack, an early patriot and master penman. Because Matlack's lettering is on so many documents, it was possible to create a digital version of it as a typeface we can all use. And that is exactly what type designer Brian Willson did: His American Scribe typeface (\$39; www.oldfonts.com/americanscribe.html) lets you generate your own Declaration-like documents, posters, movie titles, and so on.

While there are a great many script typefaces available, most of them have characters that do not connect to each other—probably because script faces that connect are far more difficult to design. However, the characters in American Scribe do connect, which gives your type the appearance of having been written by hand. When using it, you'll want to be careful not to employ the tracking controls in your page-layout application, because the characters will break apart from each other, thus ruining the effect.

To the character set, Willson added 50 extra swash characters, ligatures, and ink spatters, as well as prebuilt common words, such as *Mr.*, *Mrs.*, *this*, *that*, *shall*, *by*, *which*, several variations of *withs* and *ands*, and others. By swapping those extra glyphs into your projects, you can give them an even more customized appearance without the tedious work of crafting the glyphs yourself.—JAY J. NELSON



Photoshop Tip: Global Light

By Pariah S. Burke

Think of Photoshop's Global Light setting as a shop light—one of those caged light bulbs with the hook at the top. The light illuminates different areas of a workspace, causing various parts to glint and shifting the shadows cast by those parts. The hanging light shines on surfaces facing the bulb and shadows surfaces that are angled away from it.

Altering Photoshop's Global Light setting is like moving the hanging shop light; changing the position or altitude of the Global Light changes the look of areas lightened or darkened by effects like Bevel and Emboss, Drop Shadow, Inner Shadow, and any style that features the circular angle control. Using Global Light (click the checkbox if it's unselected) gets all those effects to agree.

One of the fastest ways to destroy the illusion of realism is to employ light and shadow effects whose sources don't correspond. Using the Global Light setting with effects ensures that light sources do correspond, that highlights come from the same place, and that shadows are cast in the same direction, across multiple objects and layers.

Once your effects are configured to use the Global Light setting, you can universally change where that light comes from by choosing Layer ▶ Layer Style ▶ Global Light, and changing the Angle and Altitude of the Global Light. Check the Preview box so you can watch your effects change as they adapt to the new location of the light.

MAXIMIZE YOUR iMOVIE EDITING SPACE

Options let you work efficiently regardless of your screen size

By Jeff Carlson



Large Viewer iMovie's preset Viewer sizes make the Project Editor and Event Browser easier to work within (shown here is the Large setting [\mathcal{H} -0]).

Editting video is a task ideally suited to large monitors and lots of screen real estate. For those of us who don't own a 30-inch Apple Cinema HD Display, iMovie includes several options for maximizing the editing environment for any screen size.

Preset Layouts The standard iMovie '09 layout balances the main elements of the interface: the Project Editor, the Viewer, and the Event Library. But when you're looking for clips, you may want to use more of the window to view your Event Library. Choose Window ▶ Viewer ▶ Small (or press \mathcal{H} -8) to make the Viewer (and the Project Editor) smaller and increase the size of the Event Library and Event Browser.

When you're building and organizing your project, choose Window ▶ Viewer ▶ Large (or press \mathcal{H} -0 [zero]) to increase

the size of the Viewer and the Project Editor. This mode is great for adjusting the Ken Burns Effect on imported still photos.

To return to the normal view, choose Window ▶ Viewer ▶ Medium (or press \mathcal{H} -9). In any view, you can also click and drag the toolbar that bisects the top and bottom sections of the window to change the Viewer size.

Change the Icon Size In addition to providing more space for specific areas of the interface, you can change the size of the clip icons; this allows you to see more of your movie or video library, or to use larger icons for finer control over what appears in the Viewer as you move the mouse pointer over a clip. Drag the Icon Size slider, which affects the icons in both the Project Editor and the Event Browser.

Hide the Events List You don't need to see all of your events if you're working on clips from just one. Click the Show Or Hide Events List button in the lower left corner of iMovie's window to display only clips from the currently selected event.

Viewer on Secondary Display If your computer has an external display attached (such as one connected to a MacBook or MacBook Pro), iMovie lets you take advantage of both screens. First, make sure the Show Advanced Tools option is enabled in iMovie's preferences. Then, choose Window ▶ Viewer On Secondary Display. The preview of your movie is pushed to the other screen, and you get to use the entire top portion of the interface for editing your project.

Sure, these options aren't the same as having a giant monitor to work on, but they're certainly a lot less expensive.



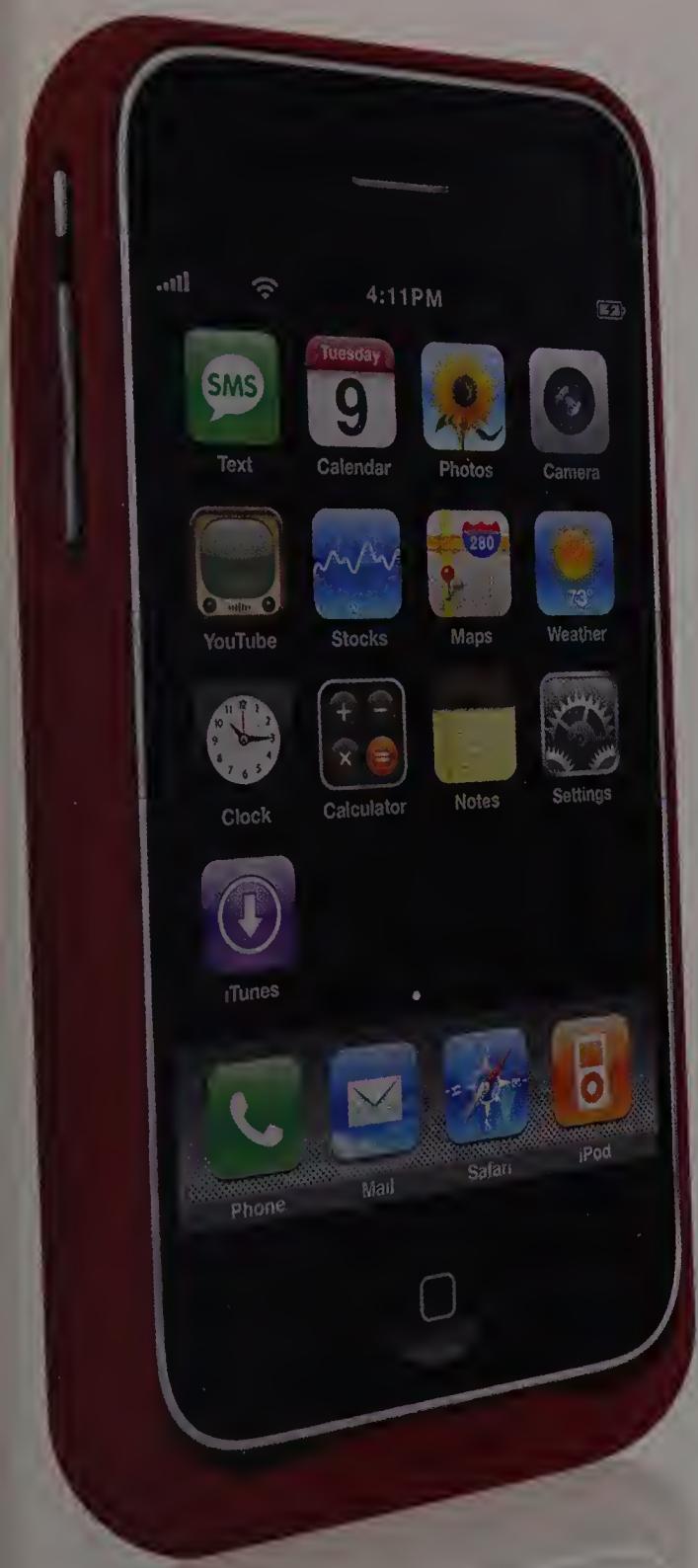
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Standby switch + USB
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Additional hours:

3G

3GS

Standby Time

270 hours

270 hours

Talk Time

4.5 hours on 3G
9 hours on 2G

4.5 hours on 3G
10 hours on 2G

Internet Use

4.5 hours on 3G
5.4 hours on Wi-Fi

4.5 hours on 3G
8 hours on Wi-Fi

Audio Playback

20 hours

27 hours

Video Playback

6 hours

9 hours

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HARDWARE, SOFTWARE, AND ACCESSORIES
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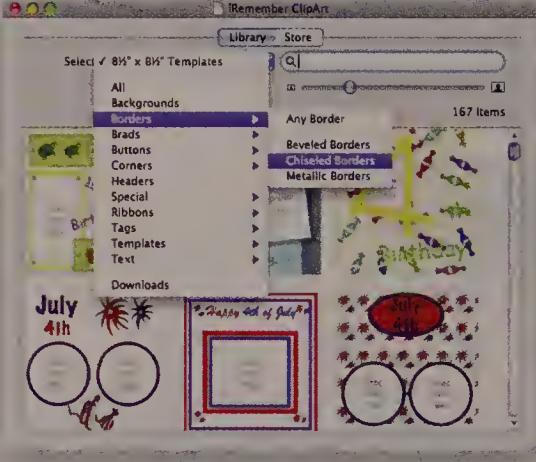


HARDWARE

Bamboo Pen & Touch

Wacom's newly refreshed line of Bamboo pen tablets also work with the most natural pointing devices of all: your fingers. The Pen & Touch, which connects to your Mac via USB, can function like a giant multitouch laptop touchpad. Pressing one finger to the tablet lets you move the mouse cursor around, and you use two fingers to perform gestures for various tasks. The Pen & Touch includes Photoshop Elements 6.0 and Nik Color Efex Pro 3.0 (macworld.com/5613).

 \$99; Wacom, www.wacom.com



SOFTWARE

iRemember 2.5.1

iRemember 2.5.1 is a digital scrapbooking program that helps you gather, fine-tune, and share your favorite images in customizable page layouts that you can tailor to create a story larger than any single photo can tell. You can combine your favorite photos with other design elements—page backgrounds, clip art, formatted text, and more—to craft vibrant pages that showcase your pictures. Overall, iRemember 2.5.1 has some good points but seems to lack cohesion, and it

feels more like a collection of discrete tools you must figure out how to use rather than a smoothly designed process you can follow from start to finish (macworld.com/5679).
 \$40; Intriguing Development, www.macscrapbook.com



iScrapbook 2.1.2

iScrapbook 2.1.2 brings high-quality design, easy layouts, and a seemingly unlimited supply of scrapbooking bits and inspiration to your desktop as you create pages. If you plan to put any real energy into your scrapbooking projects, iScrapbook is a good choice for its ease of use, flexible but powerful toolset, easy-to-customize templates, and add-on iScrapKits that let you expand your creative efforts at your

own pace. At \$50 for a single license, iScrapbook is a great fit for any new or experienced scrapbooker who has creative photo stories to share (macworld.com/5680).

 \$50; Chronos, www.chronosnet.com

PocketMac RingtoneStudio 2

PocketMac RingtoneStudio 2 for iPhone is a desktop app that lets you create your own ringtones in a few clicks. Just drop a music file onto the interface, select the portion of the tune you want to use, and click Create. RingtoneStudio exports the new ringtone to iTunes automatically, ready for syncing. Version 2 adds fade-in and fade-out options, volume boost, and a new waveform editor. RingtoneStudio lets you zoom in to a waveform up to 16X, and now features unlimited undos for volume adjustments. RingtoneStudio 2 works well but is somewhat pricey, especially considering that the app has a few bugs and supports fewer file formats than some of its competitors do (macworld.com/5681).

 \$20; PocketMac, www.pocketmac.net

Top Products

YOUR GUIDE TO THE BEST HARDWARE WE'VE TESTED

DVD BURNERS

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Flip MinoHD (120 Minutes) (pictured) www.theflip.com		\$200	mini camcorder	5512
Vixia HG21 www.canon.com		\$699	120GB HD	5182

^aAll prices are the best current prices taken from a PriceGrabber survey of retailers at press time. ^bIn a browser's address field, typing a find code after macworld.com takes you to a product's review or overview.

MacMania 10

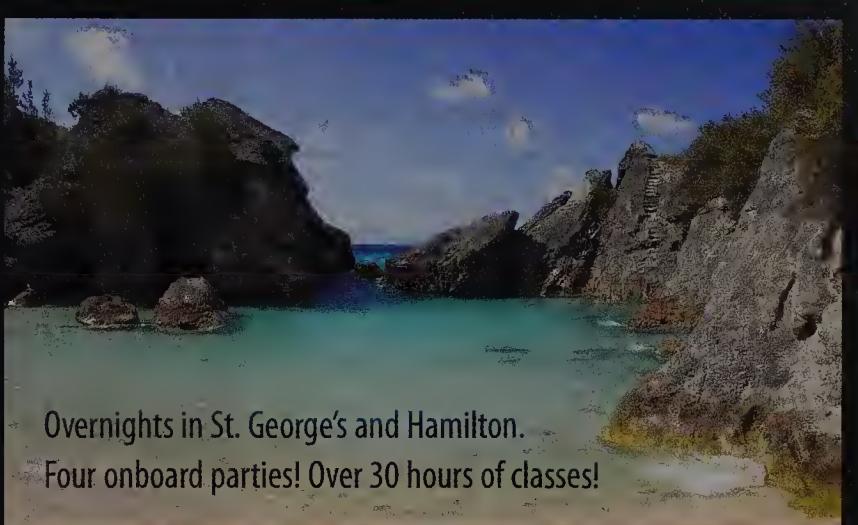
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Macworld

MAC OS X HINTS

The insider tips you won't get from Apple

By Rob Griffiths

Add Photo Booth, iChat Effects

Photo Booth includes a collection of 24 image-altering effects you can use to distort your photos. Sixteen of them are also available in iChat. But if those aren't enough for you, you can add 20 more.

To do so, you'll need a text editor that can handle binary .plist files. BBEdit, TextWrangler, and Apple's own Property List Editor should work.

To start, you need to copy some files from /System/Library/Compositions to /Users/yourusername/Library); if you don't see a Compositions folder there, create one. The compositions in the System-level Library won't all work with iChat and Photo Booth. Among those that should work are ASCII Art, Blue Print, Blur, City Lights, Color Controls, Color Invert, Compound Eye, Concert, Crystallize, Dot Screen, Exposure Adjust, Gamma Adjust, Kaleidescope, Line Overlay, Line Screen, Monochrome, Neon, Pixellate, Pointillize, Posterize, Sharpen, Tracer, and Zoom Blur. Copy as many of those as you wish to /Users/yourusername/Library/Compositions.

Before you proceed any further, take note: Some users have experienced crashes with Photo Booth or iChat after adding some of these effects. As I say, the effects



More PhotoBooth Effects You can enable 20 new effects in PhotoBooth (and iChat) by copying new composition files to your Library folder and editing them; be cautious about it, though.

above reportedly work, but they may not on your system. You've been warned.

Still with me? The next step is to edit the files you just copied. Launch your binary-friendly editor and then open one of your copied files. Find and delete these three lines:

```
excludedHosts  
com.apple.PhotoBooth  
com.apple.iChat
```

When you've done that, save the file. Test the edited effect in PhotoBooth or iChat before changing another one. If you crash after adding these effects, the fix is simple: Remove the effect from /Users/yourusername/Library/Compositions.

Enable Global Text Replacements

Text substitution—which lets OS X automatically replace one set of characters with another set of characters or symbols—is one of Snow Leopard's more intriguing new features. For instance, you could make OS X generate the copyright symbol, ©, when you type (c). You can define your own shortcuts on the Text tab in System Preferences' Language & Text preference pane.

However, substitutions are not enabled globally by default; they must be enabled in each application that supports them. To do so, select Edit ▶ Substitutions ▶ Text Replacement. If you'd rather

Have a Hint to Share?

Go to MacOSXHints.com to submit it. This column was based on tips from John Pell, Anthony D. Saxton, and anonymous contributors. Each

month, the author of our favorite tip receives the *Help Desk* mug.



enable substitutions in all your apps at once, open Terminal and enter the following command:

```
defaults write -g  
WebAutomaticTextReplacementEnabled  
-bool true
```

This change will take place only in programs that support text replacement, and in which you haven't disabled it.

Be careful with this, though: These shortcuts can have unintended consequences. For example, if you're writing code and want to refer to a variable **c**, it might look something like this:

mystring = uppercase(c). If text substitution is enabled in your text editor, that **(c)** would turn into **©**—not what you want.

If you want to turn off this option, enter this command in Terminal:

```
defaults delete -g  
WebAutomaticTextReplacementEnabled
```

Copy E-mail Addresses Only in Mail

One of the subtle changes in Mail in OS X 10.6 is the way the Copy Address entry in the contextual menu works. In previous versions of Mail, when you

Control-clicked on an address and selected Copy Address, the user's e-mail address would be copied to your clipboard. Do the same thing in 10.6, and you'll copy the person's name followed by the address in brackets.

If you want to revert to 10.5's way of copying just the e-mail address, quit Mail and then enter this command in Terminal (in /Applications/Utilities):

```
defaults write com.apple.mail  
AddressesIncludeNameOnPasteboard  
-bool NO
```

When you reopen Mail, Copy Address will once again do just what it says. If you want to go back to the 10.6 way, quit Mail and run this command in Terminal:

```
defaults delete com.apple.mail  
AddressesIncludeNameOnPasteboard
```

Create a Mail Message in Any App

While OS X provides services that will let you send e-mail based on a selected file or e-mail address, there's no global "I'd like to create a new e-mail message" service. But with a bit of work and a little help from AppleScript, you can create your own command to do just that.

WHAT'S ONLINE

Magic Mouse Momentum The Magic Mouse has momentum scrolling in OS X 10.6; here's how to get the same feature in 10.5 (macworld.com/5677).



Open Minimized Windows in Current Space Open a minimized window in the current space instead of switching to that window's original space (macworld.com/5678).

The first step is to create the AppleScript. Launch Automator and select Service from the template chooser. When Automator opens, set the pop-up menus at the top of the work area to No Input and Any Application. Then find the Run AppleScript action and drag it into the blank work area on the right side of the Automator window. Remove all the code that appears there, and replace it with the following:

```
tell application "Mail"  
set t to make new outgoing  
message  
set visible of t to true  
activate  
end tell
```

Save your service with a relevant name ('New e-mail,' say), and then open the Keyboard Shortcuts tab of the Keyboard system preference. Select Services in the column on the left and then scroll down to the General section in the column on the right. You should see your newly created service listed there; double-click to the right of its name and assign it a shortcut.

This shortcut will be available in *all* applications, so make sure it's unique—use some combination of Shift, Control, ⌘, and Option plus your activation key to ensure that it doesn't conflict with any other shortcuts. I assigned Shift-Control-Option-N as my shortcut, for example.

(If you're using OS X 10.5, you'll want to use Script Editor to create the script and then use a program like Spark [macworld.com/5676] to assign a keyboard shortcut to it.)

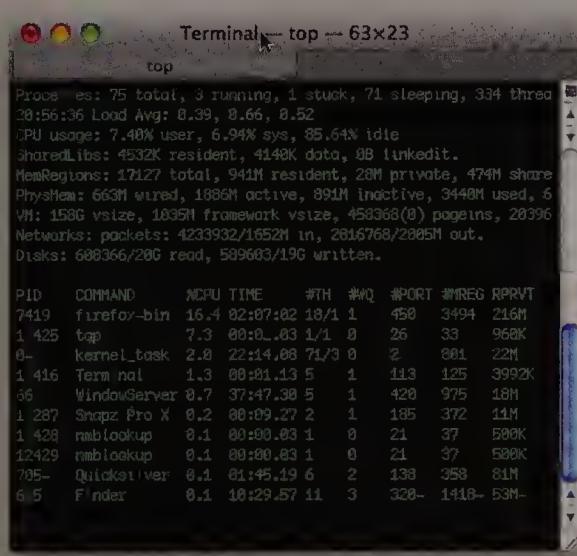
POWER TIP OF THE MONTH

Snow Leopard's Top Command Changes

The **top** command in Terminal can report on your CPU, memory usage, and more; I often use **top** in Terminal as a quick-and-dirty version of Activity Monitor. In OS X 10.5, I used **top -u 10** regularly; the **-u** flag sorted by CPU usage, and the **10** restricted the output to 10 processes. It gave me a quick snapshot of the biggest CPU hogs that were running.

In 10.6, though, that command doesn't work, because **top** has been updated. In the new version of **top**, many of the runtime options have changed, including the **-u** switch. To re-create the simple CPU usage tracker I used in 10.5, for example, the new version of the command in 10.6 is **top -o CPU -n 10**.

You can find out more about the new version by typing **man top** in Terminal.



Terminal Activity Monitor The **top** command can show system resource usage by process.

MAC 911

Solutions to your most vexing Mac problems

By Christopher Breen

Create Non-English Characters

Q: When you are typing in Spanish, how do you make an *N* with a tilde (~) over it?

Chris Rattan

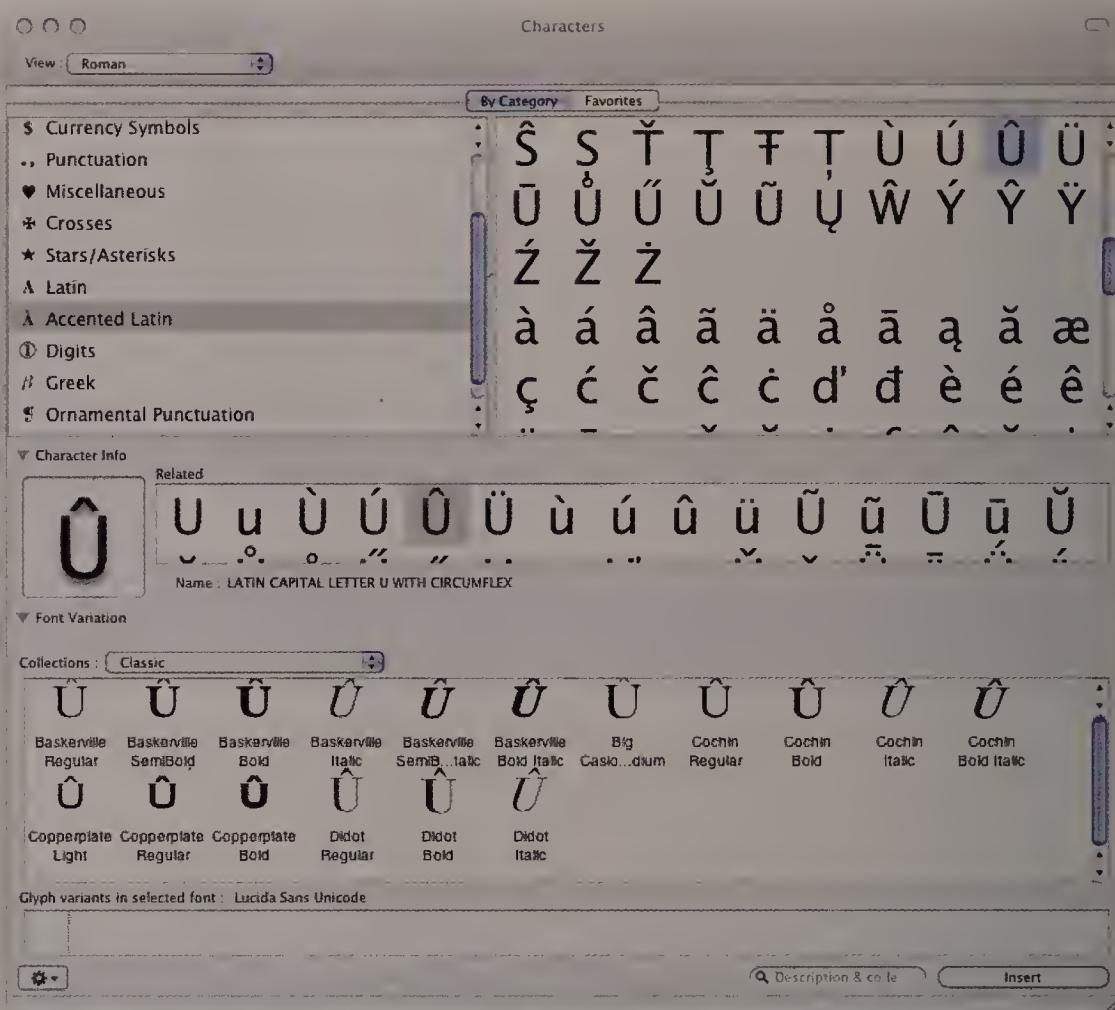
A: The short answer is to hold down the Option key, press the N key, and then press N again to get the *é* character. On the first press you'll see the tilde as well as a line beneath it. That line indicates that this character will be placed over the next compatible character you type—for instance, you can press N or A and the character will appear as *ñ* or *á*. But if you press R, which isn't a compatible character, you'll see *~r*. (To get *Ñ*, press Option-N and then Shift-N.)

The Mac supports a variety of diacritical marks—added glyphs that appear above or below letters. And they’re often produced as follows. For example, to create an umlaut (“), press Option-U and then type a compatible character. For an accent grave (`), press Option-tilde and then the character.

If, like me, you rarely use these characters, you may not remember the key combinations for creating them. Fortunately you don't have to. In many applications you'll find a Special Characters command at the bottom of the Edit menu. Select this command, and a Characters palette appears. Within this palette choose Roman from the View pop-up menu and select Accented Latin from the list below, and a pane to the right will display accented characters (see "Find Characters").

Have a Problem?

Go to the Mac 911 forum (macworld.com/2467) for help with your misbehaving Mac or applications.



Find Characters You can use the Characters palette to insert non-English characters.

Select the character you're after, click the Insert button at the bottom of the window, and the character will be placed in your document at the insertion point.

You can produce this Characters palette even when an application lacks a Special Characters command. If you're using Leopard, launch System Preferences, select the International preference, and click the Input Menu tab. Then enable the Character Palette option, and you will be able to produce the palette by choosing it from the menu bar. The steps are similar when you're running Snow Leopard except that you choose the Language & Text preference, select Input Sources, and then enable the Keyboard & Character Viewer option.

Take Advantage of E-mail Deception

Q: When I visit some Websites, I'm asked to provide an e-mail address. I'm concerned that this will lead to more spam. Any suggestions?

Gary Campbell

A: Ignore your Sunday school teacher and lie. When asked for an e-mail address for no good reason, feel free to enter joeblow@example.net and smack the Return key. With luck, the Website will take this as the goods and let you get on with your business.

Regrettably, this doesn't work as well as it once did. Increasingly, a Website will ask you to submit an e-mail address and then will e-mail you a link to whatever you've requested. If the address

you submit is no good, you can't get the thing you were after.

That doesn't mean you must offer your main e-mail address, though. I've created a couple of free Google and Yahoo addresses for exactly this purpose. When asked for an e-mail address that I know will generate an activation message, I plunk in one of these addresses. I check that account for the activation e-mail and then ignore the account until I next need it.

Gmail allows you to get even finer with this. You can customize your Gmail address by placing a plus sign (+) after your username and then adding some identifying text. For example, mail sent to example+softwarereg@gmail.com will arrive at the example@gmail.com address. This is useful because you can then set up a filter in your e-mail client that looks for addresses that contain plus signs—example+forumreg@gmail.com and example+purchase@gmail.com.

If you have a MobileMe account, you can create up to five alias addresses. Messages sent to these aliases are forwarded to your primary MobileMe address. So, for example, when dealing with Company X, create an alias for joeblowcompanyx125@me.com. After you've received Company X's activation e-mail, delete the alias. Any future messages sent to this account won't go through, as it's now a dead address.

'Lock' an External Drive

Q: Is there software that can lock an external hard drive so that if someone gets hold of it, they won't be able to view the data?

Dustin Kuo

A: What you need to do is create an encrypted space on all or a portion of your drive and then move the files you want to protect into it. You can do this in a number of ways.

One method is built into Mac OS X. Open Disk Utility, choose File ▶ New ▶ Blank Disk Image, and in the resulting window choose Sparse Disk Image from the Image Format pop-up menu and either 128-bit AES Encryption or 256-bit AES Encryption from the Encryption

Bugs & Fixes

BY TED LANDAU



Safe Boot Fixes iWork and

iWeb Crashes A new Apple Knowledge Base article confirms that iWork software (Pages, Keynote, and Numbers)—as well as iLife's iWeb '09—may crash when running under Mac OS X 10.6.2. The fix is easy: Just do a Safe Boot—start up your Mac while holding down the Shift key, and then restart again as normal.

While the purpose of a Safe Boot is primarily to allow your Mac to start up successfully when it would otherwise crash, a Safe Boot also automatically performs a series of tasks that may fix problems unrelated to startup crashes. One of these tasks is to move font cache files to the Trash, forcing the creation of new copies. This is the critical action needed to fix the iWork and iWeb crashes.

Apple notes one final step you may need to do after rebooting normally: "If you use Font Book to manage your fonts, you will need to open Font Book" after restarting again following the Safe Boot. This restores Font Book library information. However, "the state of whether fonts are active or disabled will be lost. You will need to correct this manually."



Screensavers in Snow

Leopard When Snow Leopard (Mac OS X 10.6) was first released, I noted that many third-party screensavers would no longer work in the new operating system. This was because 10.6 required 64-bit compatible screen-

savers, whereas existing screensavers were 32 bit. Unlike with the similar problem affecting third-party System Preferences panes, there is no 32-bit workaround for screensavers. (That workaround is to quit and relaunch System Preferences when prompted to do so after attempting to open a 32-bit pane.)

For this reason I gave up on my third-party screensavers after installing Snow Leopard. Recently wondering what had happened to those screensavers, I visited their Websites. Pleasant surprise. All four of the screensavers that I had used the most in 10.5 have now been updated to work in 10.6. These are the following: 3D Weather Globe (www.mackiev.com), My Living Desktop (www.mylivingdesktop.com), Fireflies (s.sudre.free.fr/Software/Fireflies.html), and Marine Aquarium 3 (www.serenescreen.com). All the updates except Marine Aquarium 3 were free. As I had Marine Aquarium 2.6, there was a \$10 charge for the upgrade. I decided to pass on this.

The only install problem I had with the three remaining upgrades occurred with Fireflies. The Desktop & Screen Saver preference pane refused to install it, claiming that it was still not compatible with 10.6. Quitting and relaunching System Preferences solved this glitch.

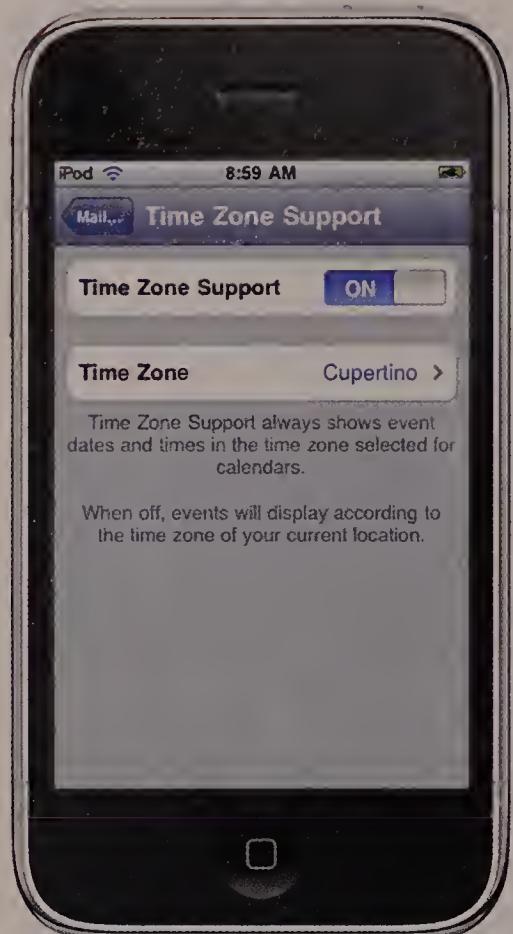
Senior Contributor **Ted Landau** is the founder of MacFixIt (www.macfixit.com). Share your problems at bugs@macworld.com or on Macworld.com's Mac 911 forum.

pop-up menu. Then choose a size from the Size pop-up menu (if the preconfigured sizes don't suit you, select Custom and then enter a size). Name the image, save it on your external drive, and click the Create button. You'll be prompted for a password. Enter and verify that password and click OK, and you'll have a protected image that can be opened only with your password. Move your files into this image, and you're good to go.

Note that you should not store this password in your keychain if you're concerned about security. Also, this image

will take up only as much space as the accumulated content inside it. So, even if you've asked for a 5GB image file, if you put 1GB worth of files in it, the image will be only 1GB. You can then continue to add files until you reach that 5GB limit.

Another free option is the open-source TrueCrypt (www.truecrypt.org). This is a cross-platform encryption tool that you can use to encrypt folders and volumes. Again, if you intend to encrypt an entire external hard drive, you'll first have to move the files off that drive, format it with TrueCrypt, create an encrypted



Time Zone Support With Time Zone Support on, events reflect your home time zone.

volume, and then copy your files to that volume. TrueCrypt features more encryption schemes than Disk Utility does.

And then there's the \$35 Knox (www.knoxformac.com), which our resident Gem-meister Dan Frakes tells me is the goods. Like Disk Utility, it creates images by using either the 128- or 256-bit AES standard. Unlike with Disk Utility or TrueCrypt, you can use Spotlight to search the contents of a Knox image (termed a "vault"). (You can search the image only when it's open.) And Knox includes a backup feature.

Understand iPhone Time Zone Support

Q: How is time zone support supposed to work on the iPhone? I enter a meeting while in my home time zone. When I get to the meeting site in another time zone, my iPhone resets to the local time and the meeting time is wrong—it reflects my home time zone.

Paul Velleman

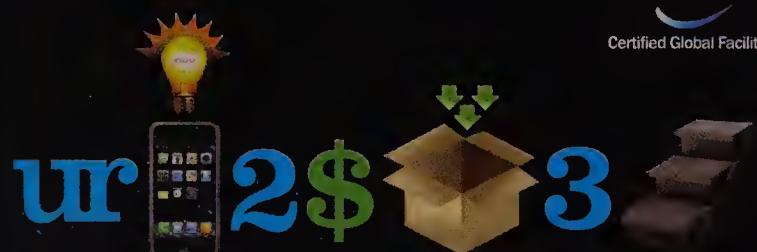
A: The way the iPhone OS works with time zones is confounding to some people. It's like this.

On the iPhone or iPod touch, choose Settings and then Mail, Contacts, Calendars; scroll down to the Calendars area, and tap Time Zone Support. In the resulting Time Zone Support screen, you see two items—Time Zone Support (On/Off) and Time Zone (see "Time Zone Support"). When Time Zone Support is off, the time of any events that appear in the Calendar app—whether created on the iPhone or in iCal and then synced to the device—will shift, based on the time zone in which the iPhone or iPod touch currently resides. So, for example, if you live in California, create an event for 1 p.m. on Monday, and you and your iPhone journey to Maine, the event's time will shift to 4 p.m.

When Time Zone Support is switched on, the time for the events will be based on the time zone selected in the Time Zone Support screen. So, if that time

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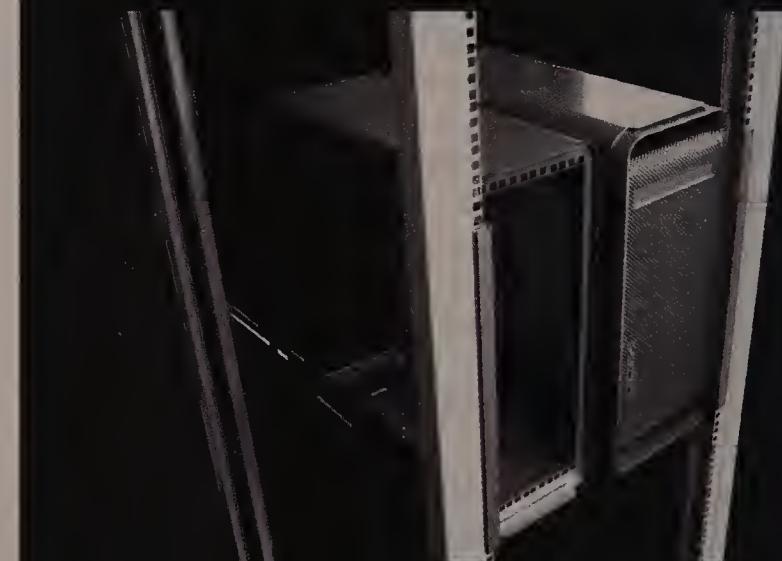
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@ activate the space

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zone reads Cupertino, an event on the iPhone or iPod touch originally created for 1 p.m. Pacific time will remain 1 p.m. regardless of the time zone in which the device currently sits.

The trick to putting this feature to good use is understanding when it's best to allow events to shift and when it's better to leave them alone. The rule of thumb I use is this: If the bulk of my work involves dealing with the folks back home, I allow events to shift by switching off Time Zone Support. For example, if I have a call scheduled for 9 a.m. Tuesday back home in California and I'm in Atlanta, it's far better that my iPhone let me know that this event will take place at noon.

On the other hand, if while at home, I've scheduled a week's worth of meetings in an exotic burg such as Copenhagen, I'd like the events' times to stay exactly where they were when I first entered them. And thus, I turn Time Zone Support on and continue to use Cupertino as my home time zone.

ICON BY PAUL HOWAULT

X MAC 101

Clean the Keys

Q:

I have an old keyboard that I love, but its keys are sticking due to built-up dust and gunk. Can you recommend a good, safe method for cleaning it?

Marcie Phipps

A:

The first step in cleaning one of these keyboards is to grab a can of compressed air (found at any electronics supply store) and blast air around the base of the key in the hope of dislodging the detritus beneath it. Flip the keyboard over and give it a good shake to remove the gunk you've loosened. If a key remains unresponsive after this treatment, gently pry it up with a small flat-head screwdriver and then clean its post.

If the keyboard is so filthy that it appears to be a lost cause—as it might after a major coffee, soda, or Mai Tai spill—feel free to put it in the dishwasher. Place it in the top rack, dial the dishwasher to a rinse-only setting, skip the detergent, and run it through. When the cycle is finished, remove the keyboard and let it drain, with keys facing down, until it's completely dry—this could take a couple of days. I've done this with a beloved Matias TactilePro keyboard that I thought I'd have to replace, and I'm happy to report that not only did it survive, but it works perfectly (and is a whole lot nicer to look at than it once was).

EazyDraw Version 3.3

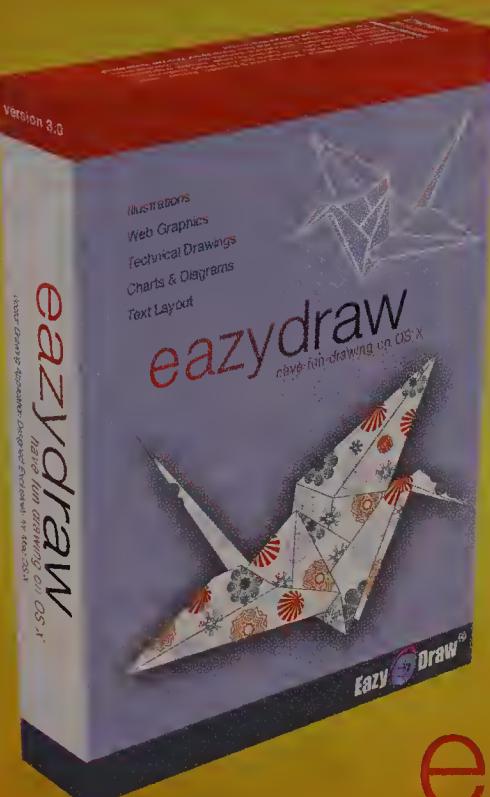
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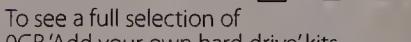
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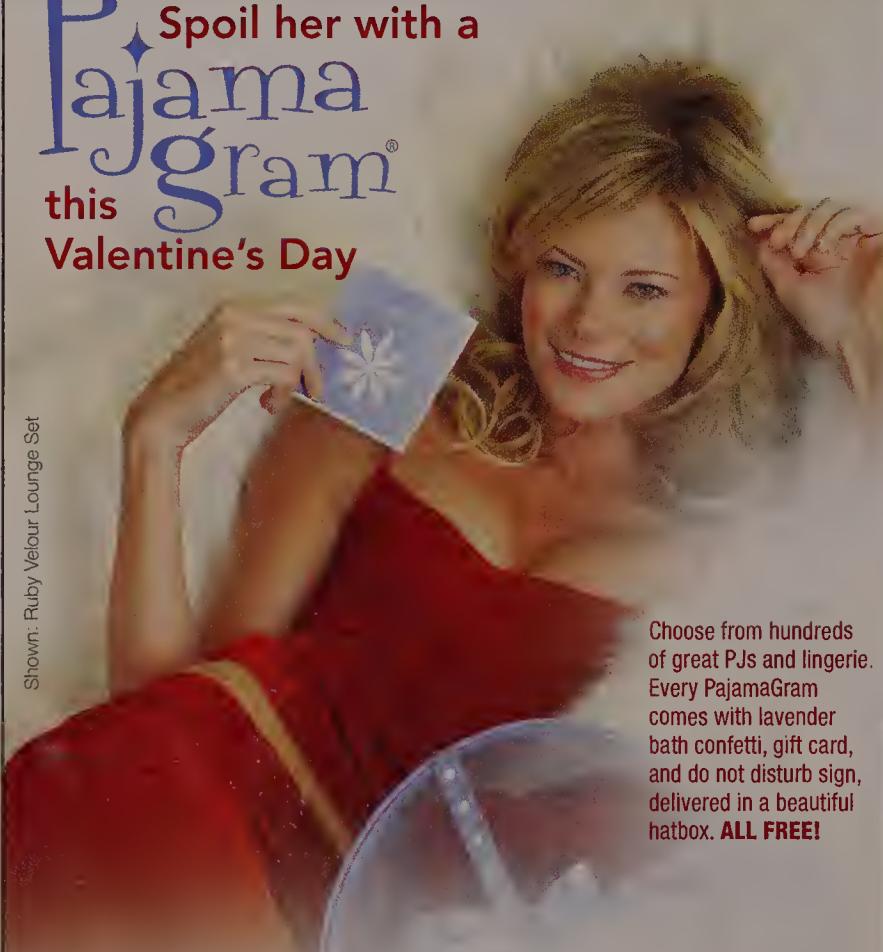


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Social Networking Works Only If It Works Your Way

I've been using Twitter for about four years, since shortly after Twitterific (iconfactory.com) debuted. I have all of 37 followers. That's probably about 12 more than I'm comfortable with, but I'm trying to be flexible.

Twitter turned out to be a nearly ideal way for me to stay in touch with the groups that matter most to me: in-state family (some of whom live in rural areas and don't have broadband, which makes Twitter's short format quite practical); friends both near and far; and colleagues in Mac-watching.

My Water Cooler

Writing can be a solitary business, but Twitter makes me feel like I'm sharing an office with my small set of followers: There's a steady conversation throughout the day that's more responsive than e-mail yet (unlike a phone call or an in-person chat) doesn't require my full attention. Those other channels all have their places, but Twitter is my office's water cooler, populated by family and friends around the world.

However, to make it work for me, I made my Twitter stream private: you can't read my tweets unless I specifically authorize you.

For a long time, I couldn't figure out how people I didn't know were finding me on Twitter and asking for authorization. I finally realized that some of the individuals I follow have thousands (or tens of thousands) of followers. When one of those individuals replied to me using Twitter's "@" syntax, that put my Twitter name in the public timeline. That made some strangers want to follow me.

Sorry, but no. I use Twitter in my own personal way. I have some health issues (doing well, thanks for asking), and my family likes to hear from me pretty regularly, to make sure I'm OK. I use Twitter for that. I can send a "good night" message at 5 a.m. and know that multiple

people will see it. That's a lot easier than sending e-mail messages to each of them or, worse, trying to call.

I also often tweet to let them know I'm out of the office for a while. That's one reason I keep my feed private, because, quite frankly, I'm not comfortable with strangers tracking my movements. That may be fine for some people, but it's not fine for *me*.

Nothing Personal

Twitter has the potential to make everyone a worldwide celebrity—which is not something I want to be. I want to make unguarded comments around my "water cooler." I want to complain about your political party, and just as often, about my political party. I want to root for my sports teams and disparage yours. I want to get excited or mad about current events unrelated to my job and

I like technology that molds to my needs, rather than making me change my style to fit its design.



express those feelings. I don't want to do so in public tweets that will be enshrined in "the cloud" for electronic eternity.

If I don't know you, I frankly don't think you should care about my opinions. (I barely care about most of them myself.) But Twitter leaves a trail that a person with even a marginally public face—like mine—may have to defend forever. My every attempt at wit should not have the half-life of uranium 238.

I also limit the list of people I follow on Twitter, to keep interruptions manageable. I've had to drop some folks I greatly respect from my list because they'll occasionally send 100 tweets in an hour. That's too much distraction. I could check Twitter less often, but then it'd be harder for friends and family to send me the updates I do want to see. I also don't need to wake up and find 150 new tweets waiting for me; that puts me in catch-up mode for the entire day, and I'm already far enough behind. Once people reach 10,000 followers, their tweets become more performance than substance.

I like technology that molds to my needs, rather than making me change my style to fit its design. Keeping my Twitter feeds private is one way I do that. It hasn't always been easy, but it's manageable now.

In general, if I'm not comfortable giving you my telephone number, I probably won't let you follow me on Twitter—even if I know you or even if I like you. Don't feel bad if I deny your request. It's nothing personal: I just don't want to spend my online life in a fishbowl. Besides, I'm really quite boring. You're not missing much.

Matt Deatherage is the publisher of MDJ and MWJ. You can learn more at MacJournals (www.macjournals.com). He and his colleagues tweet (infrequently) about Mac news as @macjournals.



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